

# THE ARCHITECTURAL RECORD

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FIG. A.—VIA DEL MELANGOLO, VITERBO.

(See article, "A New Series of Stage Settings for Shakespeare's 'Romeo and Juliet.'")

# The Architectural Record

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## A New Series of Stage Settings for Shakespeare's "Romeo and Juliet."

Designed by Frank Chouteau Brown, Architect.

Although the designing of stage scenery does not belong to the ordinary routine of work in an architectural office, yet the architect's training should eminently fit him to suggest interesting and architecturally correct stage pictures; whether or not he possesses a sufficient knowledge of scenic requirements to fully work out in detail the exact application of his ideas to the elaborate conventions of the stage.

For many of the most important English productions, especially those required to truthfully depict a definite historic period or place, proper architectural advice has been obtained in one or another form before starting the scenery. Upon a few occasions it has even been entirely given into such competent hands; in the same way that the costumes are often designed by such authorities as Sir Alma-Tadema, or Mr. Percy Anderson, for instance. For this there exists ample precedent as, in the early days of the development of the English drama, we know that many settings were invented by the eminent architect Inigo Jones; to whom, indeed, we are largely indebted for the present arrangement of both Theatre and Stage; even many of the actual scene conventions still existing to-day in theatrical presentations having been first originated by him.

Previous to this in another country,

Italy, architectural designers had also been employed upon stage scenery. Serlio in one of his works on Architecture, gives us designs for stage settings appropriate to different kinds of classic plays, and at least one stage setting of his design was employed in Palladio's native town of Vicenza. A little later, Scamozzi designed the stationary scenery still in place in Palladio's Classic "Olympic" Theatre in the same city.

Since the time of Inigo Jones, now just 300 years ago, the conventions governing theatrical scenery have become so complicated and technical that, unless the designer possesses a most elaborate and intimate knowledge of the necessities of the problem presented by its handling, setting, housing, and transportation, a most impractical set of designs is likely to result.

That there exist to-day certain prejudices against the architect as a scenic designer among even the best theatrical managers, is apparent from a previous personal experience of my own. Some six years ago, when work was just commencing on a certain important production, I called on Mr. Daniel Frohman, the producing manager, to suggest the possible advantages of having the Colonial and Georgian architectural settings reproduce, with more fidelity than the scenic studio would ordinarily compass, the actual local surroundings of

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this early period in our development and history. He proved to be most approachable, but when it developed in the course of the conversation that his caller was an architect, it immediately became apparent that he had no inclination to further discuss the matter with any one belonging to that profession.

From the impression obtained at that time it appeared that previous experience had quite convinced him that such gentlemen were as a class too narrow and assured in their point of view; as well as too impracticable and expensive in their designs, to make it worth his while to undertake any additional bother for what was—so far as any direct financial return or artistic appreciation from an audience could be counted upon—a comparatively unimportant detail. And this represents the position taken by one of the most enlightened, intelligent, and probably least commercial among our theatrical producers.

It was consequently with some surprise and pleasure that the proffered opportunity to work up a set of designs for scenery to accompany Shakespeare's "Romeo and Juliet" was accepted by the writer. Even under the greatly restricted conditions that in this case necessarily accompanied the commission, the ideal beauty of the scenic problems presented by such a play was in itself an inspiration.

In further explaining the circumstances attending this venture there is no intention of begging allowances on account of undue restrictions, as to cost or otherwise, having been imposed by the Theatre management. Such is far from being the case. The more thoroughly the actual facts are known, the more remarkable and interesting the experiment becomes. The Management itself displayed a surprising liberality, and seemed actuated only by the desire to put on a Shakespearian play in the best manner that was humanly possible in a Repertoire theatre, with the resources at their disposal.

The performance was to be given "for one week only" at the Castle Square Theatre, in Boston, where a dramatic

Stock Company giving a matinee and evening performance on all six days of the week is maintained. To realize the designs by constructing and painting the scenery and properties, the regular staff connected with the theatre could alone be depended upon. There also existed other unalterable conditions.

The matter of time was important. The Management had so far determined the plays that were to precede and follow "Romeo and Juliet," that it was impossible to make any substantial change in their sequence; and for the painting of scenery, but an absolute two weeks was available. During the first of these two weeks, too, it became necessary to finish up and put into final shape the scenery for Boucicault's "Colleen Bawn," the play that occupied the stage of the Theatre for the week immediately preceding "Romeo and Juliet." This popular Irish melodrama required the handling of some 14 separate scenes at each presentation; which was, in itself, unfortunate, as it occupied all the stage hands and property men continuously during every afternoon and evening of the week. It was this sequence that largely proved the responsible cause for the inability of the Theatre staff to finally realize, in some two or three of the scenes, the utmost of the intentions expressed in the scene models.

In laying out this scenery too, not only was the designer held down by the ordinary considerations that hold true of any production of a Shakespearian drama; so many scenes to be quickly handled requiring especially simple construction, but other restrictions, as well, resulted from the special conditions governing the case. A due regard for the short length of the run, one week, made impossible the use of any elaborately constructed or built-up settings, as well as those requiring many "flats" of characteristic or special outline. It thus became necessary to depend almost entirely upon simple "drops," "borders," and plain stock "wings" of ordinary size, to realize the effects of each scene. These necessary



limitations were all most reasonable, and instead of restricting the scenic possibilities, they even added an additional zest in making the problem the more difficult of solution; while in no case can it be said that they prevented the realization of an appropriate and effective set.

Besides requiring thorough experience, a practical knowledge of the technical restrictions determining the construction and use of scenery, the architect has certain other temperamental and educational influences to overcome before he can be relied upon to produce successful stage pictures. In this capacity there are demanded of him many of the imaginative, picturesque and compositional traits of the successful painter; qualities that are little likely to survive the conventional architectural training with its insistence upon classic balance and repetition of feature, tendencies to which the arrangement of the stage picture unfortunately most readily lends itself.

But the placing of the period of the play anterior to the Renaissance, (the early fourteenth century) made it essential to adopt the more informal treatments that belonged to that pre-classic age. Both the too-archæological and too-architecturally-perfect points of view were to be as carefully avoided as was consciously possible, as any such treatment would at once cause the settings to become monotonous, hard and ungraceful; and would result in an immediate lack of grasp upon the Audience as well as a corresponding loss of picturesqueness, "atmosphere" and human interest in the scene itself.

The student will recognize that neither the period nor the locality in which *Romeo and Juliet* is placed are to be regarded as inseparably connected with its story. As usual in Shakespeare's plays, no great effort at localization, either by the addition of local color or atmosphere to the text, has been attempted; and in placing the action as he did in and about Verona, it is not to be supposed that anything more than the suggestion of an appropriate poetic and

picturesque background was intended.

Above all, it was important for the settings to be picturesquely and strongly suggestive of the romantic atmosphere of the story, and it is this reason alone that makes the North Italian *locale* so scenically valuable, offering as it does picturesque possibilities of much greater importance than absolute historic or architectural veracity. Any romantic suggestiveness possibly derivable from period, landscape, environment, color or line were made to assist psychologically or visually toward producing upon the audience the temperamental mood most desirable for their appreciation of the various scenes of the play.

Of the many versions of this story that appear as probable sources for the derivation of the plot, the one included in Matteo Bandello's collection (published in 1554) may be considered as the most important. This tale there appears localized in North Italy, and some students of Renaissance literature have even so definitely placed its action as to claim the year 1303 for its approximate date, and this period has been in the main adhered to in these settings.

It was almost immediately decided that it was neither essential nor advisable to archæologically reconstruct the 14th century city of Verona. So suggestions and motives from remains belonging to that century or to the immediately preceding periods have been used without any hesitation, so long as they suggest in type and treatment the architecture of the North Italian provinces.

The early date given to the occurrence of the tragedy was, however, the cause for other difficulties that may not be apparent to any one not knowing intimately the architectural conditions in Italy at and since the 14th century.

The architect will, after a moment's thought, realize the great lack of existing authentic Italian buildings dating from or previous to the year 1303, for instance, but only the scenic designer will appreciate what extra labor this lack of material entails. Outside of the two fairly well known old houses at Vi-

terbo (Figs. A and B) variously assigned to the 12th and 13th centuries, some of the dwellings in San Gimignano—several of which are shown in the view in the Piazza Cavour (Fig. C) amongst them being the well known Palazzo Pratesi at the right, supposititiously dating from the 13th century—and some of the less well defined and more ruinous buildings that are still found in mediæval portions of such cities as Viterbo and Gub-

and since the period of the Renaissance, but aggravate the difficulties of the problem.

On the other hand, the very name of Italy conjures up a well-defined romantic atmosphere, so widely spread that it might well be expected that there would be few people in an American audience but would have some more or less definite ideas as to the type of landscape and architectural surroundings proper to the



FIG. B.—OLD HOUSES IN VITERBO.

bio, available existing material is scattered and hard to find. He will further realize the fact that there exists substantially no interiors belonging to the life of this period except what have come down to us in the treatment and the decoration of one or two churches, notably the lower Chapel of S. Francesco at Assisi; and the fact that there exist countless photographs of picturesque and beautiful Italian architecture, reproducing existing buildings dating from

country—if not to the play. And it was important for the success of the settings that these ideals should not be too rudely shattered. In other words, it was necessary to a certain extent to consciously "play to the gallery" in suggesting as much as possible of what they would recognize as being "Italian," while at the same time not so far departing from the actual surroundings and conditions of the time—so nearly as they could be reimagined or reproduced—as to discon-



FIG. C.—PIAZZA CAVOUR, SAN GIMIGNANO.

cert the more intelligent and fastidious; or even the best trained minds that might be expected to witness this production of a Shakespearian drama. Not an easy task this, as may be seen; and it certainly was not.

In the presentation of "Romeo and Juliet" that forms the basis for this article, the acting version was first carefully arranged and studied out. This allowed of the natural determination of those alterations of deep and shallow stage settings necessary to secure the rapid suc-

cardboard at the scale of one-half inch to the foot, in just the way that it would be afterwards constructed at full size in the painted borders, flats, wings and drops of the theatre. It might as well be at once confessed that even with a long familiarity with the stage and theatre, both from "in front" and "behind the scenes," there yet remained a great deal that it was necessary to learn. These deficiencies in a minute knowledge of a myriad technical details were at once discovered when starting work upon the models of the scenes, and so each scene model had to be carefully studied out and painstakingly tested, before it was possible to proceed further with that design with any assurance of its proving thoroughly practical.

On this model were shown not only the outlines and composition of the buildings, foliage and other natural accessories, but also their massing with the sky in borders, drops, etc., all in carefully rendered pen and ink drawings, so as to delineate as particularly as might be possible the architectural treatment and feeling of every detail of each scene. Besides this model, which proved the practicability of each setting, the scene painter was furnished with a careful and exact description of the intended atmosphere, material, color, lighting and treatment of each individual scene. A sketch book containing further architectural details (Fig. D), and notes not already shown upon the scene model with sufficient definiteness, as well as sketches for properties, furniture, and other accessories, accompanied the model.

Before these models were finally accepted by the management, they were submitted to the stage manager, Mr. W. C. Masson, to see if they would allow of correct employment of the "business" of the play as he had already mapped it out, and upon receiving his approval they were finally turned over to the scene painter, carpenter and property man of the theatre and actual work upon them was commenced.

Taking up the scenes in the order that they were shown, the first—"Verona," a

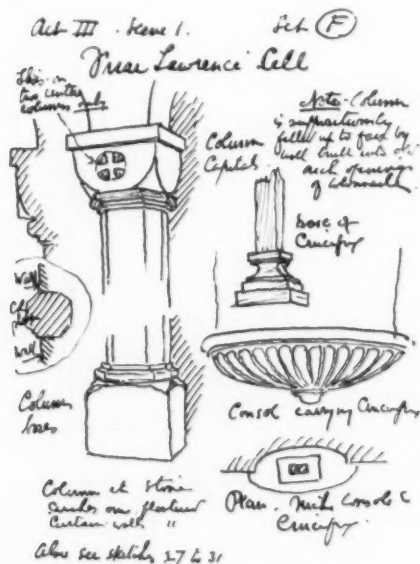


FIG. D.

cession of scenes; and when, along with many other minor matters, enough of the action had been settled upon to place the location of the entrances and exits, or the other important portions of the scenes required for the execution of stage "business" with some accuracy, work was begun upon the scenery designs themselves.

After each scene had been sketched out and its composition and architectural treatment substantially determined, a miniature stage was constructed complete with proscenium, flies, and grid-irons; and upon this stage each scene was then built up in separate pieces of



FIG. E.—THE GUINIGI PALACE AT LUCCA: 14TH CENTURY.



public place—proved in many ways the least satisfactory of the entire series. Used three times, under different conditions of lighting—at early morning, noon and at evening—its last use was by far the most impressive, as was proper considering that the death of Mercutio is the most important bit of action that takes place against this background. The entire available stage was necessary, as in two of its employments occurred a fight requiring some 40 or 50 characters and "supers" for its presentation.

For the purpose of localizing the action of the play, and including a characteristic bit of North Italian landscape, a square supposititiously placed in an elevated position on the banks of and overlooking the River Adige was selected as the basis for this scene. The distance, with the river winding among the hills, was painted on the back drop as a "transparency," in order to allow effects of sunset coloring in both sky and water by lights thrown upon the canvas from behind. As it turned out, the transparent quality of the drop finally only proved available in the Ballroom scene when, through the arches at the back of the stage, the river beyond appeared under the effect of moonlight shining upon the water.

Much of the intended architectural character of the setting has been lost through the entire omission of some houses and by attempting to utilize old "outline flats" that it seemed possible to paint over and adapt to the general shape of the others; instead of building new stage "house-wings," balustrades, steps, well head, etc., of the proportions called for in the designs. The large archway, for instance, was adapted from a "piece of" scenery previously used in *Othello*, from which the oriel window and pilaster and arch effect are palpably a survival.

When these repainted flats were set up at the scene rehearsal it became necessary, in order to fill the stage or "cover in" at the sides where houses shown in the model had been omitted, to put in two or three stock wings that, while

architecturally at variance with the period, in coloring most successfully toned in with the remainder of the picture. This explains the presence of the French half-timber houses. The purple color-note selected to pervade the garden setting was intended to be first touched in this scene; and over the trellised pergola on top of the brick house at the right, and the seat opposite were draped the white and purple blossoms of the blooming wisteria that, in the following scenes covered the Capulet garden walls, house and balcony. The final omission of the brick house restricted this effect to the seat trellisage alone, with the result that its relative color importance was so diminished as to almost entirely lose its intended psychologic effect.

Of the ten different settings there was one, a corridor in Capulet's house, for which new scenery was not painted, and this interior was shown as the second scene in the first act. The action next passed to the outside of Capulet's house, where occurs the famous "Queen Mab" speech. This shallow setting showed, painted on one drop, Capulet's house and garden wall over which and through the gateway appeared glimpses of Juliet's balcony and the garden, with its suggestion of enclosing hillsides beyond. On account of its romantic associations, an early Venetian-Gothic type of architecture was adopted for this scene, depending upon such a characteristic precedent as the Palazzo Guinigi at Lucca (Fig. E)—generally placed as dating from the first half of the 13th century—as proof of its consistency in period.

Placed against the quiet sleeping distance of garden housetops and campanile, and seen under the dim moonlight, patterned by the moving colored lanterns held by Romeo's friends; the spell of this scene was further enhanced by the carefully developed atmosphere, the guests arriving for the ball, and the occasional bursts of music, light and merriment from the house itself. Again and more importantly the passionate predominating color-note of the garden scene was here presaged in the purple and violet flowers of the wisteria that



SET I.—VERONA. A PUBLIC PLACE. SET II.—BEFORE CAPULET'S HOUSE.

Photo by Leon Dadmun.

covered the walls of house, garden and gateway with their clambering full-blossoming branches.

In this scene, used but the one time, it was possible to first fully sound the note of poetry and romance that exists throughout this love drama, and deepens and strengthens with the gathering impetus of the action, until it sweeps superbly into the grander tragic intensity of the final climax.

The interior of Capulet's house showing the Ballroom, immediately followed. Again, the number of persons required in the stage picture and the dance that formed an important part of the act demanded the full stage. In this setting alone did considerations of historic accuracy and theatrical effectiveness seem at variance. To a modern audience the effect of the severe architecture and decoration proper to the hall of the Capulet's, would seem oppressively gloomy and forbidding. It is obvious that this scene—the only one of gaiety and revelry in the whole play, and the occasion of the first meeting of Romeo and Juliet—should be cheerful and festal in effect, if only for the value of the contrast it furnishes. The atmosphere of this setting was also to foreshadow and prepare the way for the beautiful and poetic Garden scene that immediately follows.

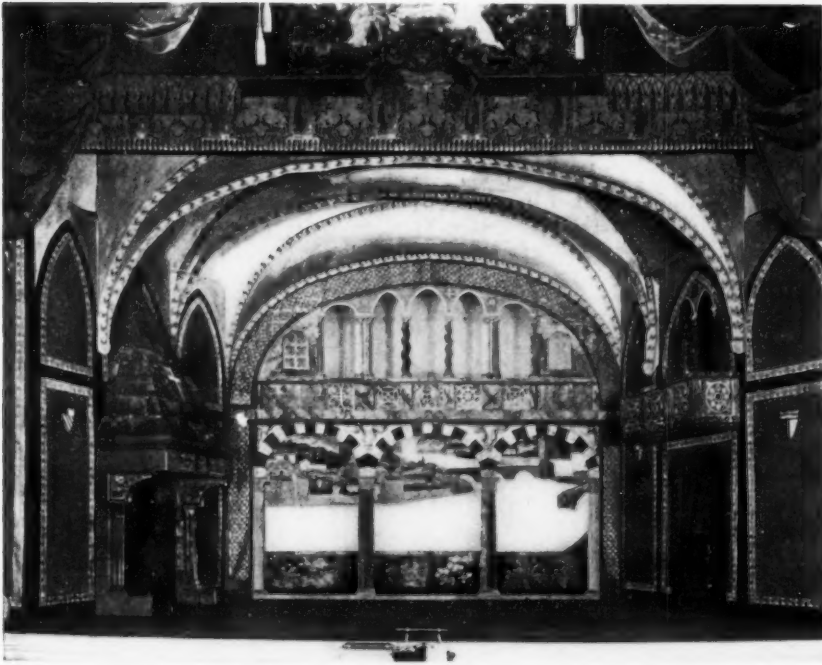
Therefore, the heavy vaulting of the ceiling was depended upon to indicate the proper construction and stern architectural lines of the room, which were lightened by the variously colored marble columns and brilliantly decorated arches of the Byzantine screen that opened out upon the loggia and terraces of the garden beyond. The coloring merely suggested the old type of decoration. The groined ceiling was painted a dark blue, with intercrossing ribs of red, blue and grey, and spangled with gold stars of many rays. The walls were toned a warm rose-red, and paneled by a stencil border of blue, yellow, and gold. When set for the performance, the banquet tables are seen through the arcade at the back, and beyond the terrace wall appears the

same view of the river as was used for the first scene. The sides of the stage are taken up by the large fireplace and the entrance used by the arriving and departing guests. Overhead is the musicians' gallery, whence is supposed to come the music that is heard throughout the scene.

When the curtain first arose the lighting was a diffused and dim shade of red in the hall itself, while through the arches the violet colors of moonlight were thrown upon the distant landscape and river. As the scene progressed and the action grew in importance the lighting of the foreground was increased in brilliancy; but by that time the atmosphere and effect of the "picture" had been thoroughly impressed upon the audience.

On account of the absolute poetic beauty of the text—probably the most perfect love-poem existing in the English language—the entire second act was given to the Capulet Garden or balcony scene. Shakespeare's stage directions place this scene in Capulet's orchard, but an old-fashioned garden foreground had already been determined upon before it was discovered that the term "orchard" at that period was used indifferently to describe either an orchard or a garden. The formal Italian garden was a product of a later age, and so this set displayed a simple semi-natural arrangement of trees and shrubbery, much such a composition as might be found to-day in the overgrown Villa d'Este, or the old Giusti Gardens, at Verona.

Running diagonally across the back of the stage is the inner side of the wall, shown in a previous scene, with the gate at the left, through which Romeo's friends appear and call to him at the opening of the act. The garden—enclosed between this wall, the house on the right, and the old Italian pergola and row of cypress trees that define the opposite side—has, near the centre, a clump of shrubbery and flowering bushes grouped around the base of two tall cypresses that overshadow and are reflected in the water of the pool below. Over all the walls of the house, garden



SET III.—A HALL IN CAPULET'S HOUSE. SET IV.—CAPULET'S GARDEN.

Photo by Leon Dadmun.

and pergola clamber the full flowering wisteria vines, whose violet and purple blossoms form a veritable shadowed bower over the arched gateway. It is these flowers that furnish the dominant purple color note of this scene and suggest psychologically something of the warmth of passion and riotous color that dwells within the poetic dialogue itself. Beyond the garden, on the other side of the lane, is seen an Italian hillside, planted with flowering orchard trees mounting to its crest, where appears in silhouette against the sky the white plastered walls and terraces of an Italian hilltop villa.

This act again calls for the characteristic early Venetian-Gothic architecture adopted for the style of this residence in an earlier scene, here expressed in the arched openings on the balcony; an architectural motif that later appears in the interior of Juliet's chamber. Whatever the means, the garden scene proved the most poetically effective of any of the settings used throughout the play. Much of the result must be credited to the inherent rhythmic beauty and pulsation of the written scene itself, with which the personation of the two lovers was so exquisitely and gracefully in accord that every iota of feeling was perfectly preserved. Some part, also, of the illusion belongs, no doubt, to the careful preparation made in the preceding scenes in working up to and preparing the effectiveness of this poetic and scenic climax. Certain it is that this setting produced the "atmosphere" and mood best suited to deepen the spell contained in Shakespeare's beautiful word-painting and so form an appropriate background against which the players could weave the tissue of their art.

Next follows the interior of Friar Laurence's Cell, used four times. Each scene is short and not dissimilar in mood from those others that precede and follow it. It allowed of a fairly successful treatment that succeeded in attaining to a nice mean between the popular idea and an architecturally simple and correct representation. The whole effect of the interior was thoroughly inter-

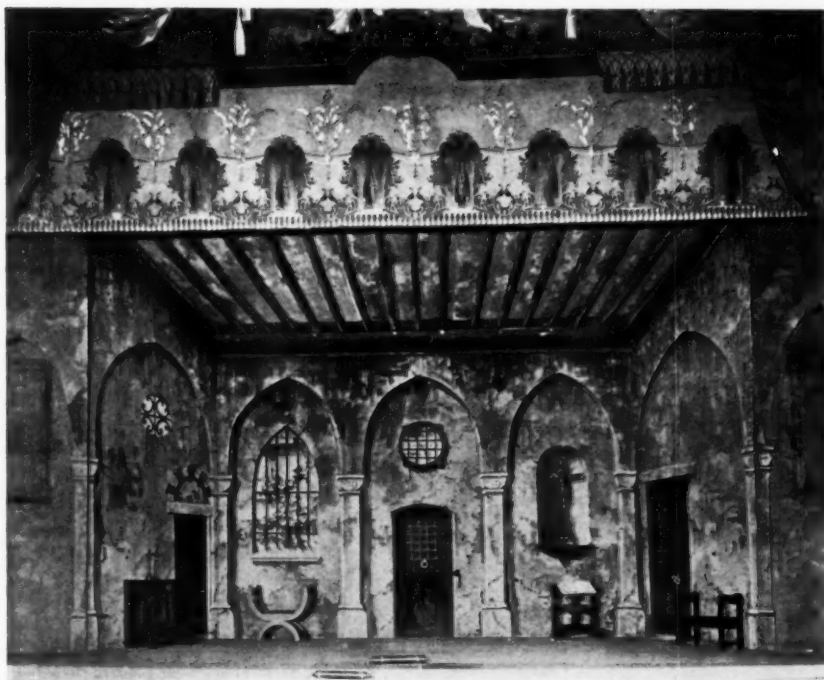
esting, although the back drop—intended to be seen through the grilled window and the open door, and representing the monastery courtyard, with its garden bounded and enclosed by the white plastered walls, red tiled roof and colonnade of the buildings on the opposite side, with a few dark cypresses cutting against the bright, blue sky—was not painted from lack of time.

The next new setting disclosed is the interior of Juliet's chamber. The architectural skeleton and plan of this room, purposely made irregular, is extremely simple. At the rear an alcove of plain plaster walls toned an old discolored red—one side of which is formed by the arched openings out on to the balcony—forms a color contrast to the age-stained, dark walnut in wide, high and simple panels that dadoed the rest of the chamber. Above this is a plaster frieze of a grayish blue tone with a stencil ornament of a different shade of the same color upon it, and overhead an informal rough beam treatment of the period.

The effect of this scene was strengthened by the furnishing and lighting, the latter being kept quiet and subdued on both occasions of its use. While of the furnishings the photograph itself gives a comparatively correct idea, for the color and lighting the imagination of the reader must be depended upon. One of the results of preparing a production in such haste appears in this setting, where it may be noticed that the cornice beam lines at one place fail to properly follow through and connect. This mistake did not show up until the scenery was put together on the stage the afternoon of the rehearsal and in the actual presentation the interest was so thoroughly held by the acting, that it is to be doubted if a half dozen people noticed the mistake throughout the entire week.

In the last act there occurred three scenes, each new to the spectator. The first, *A Street in Mantua*, was something of a disappointment as, in order to complete it in time, much of the detail intended in the original designs was—perforce—omitted, and the "faked" drop





SET V.—FRIAR LAWRENCE'S CELL.

SET VI.—JULIET'S CHAMBER.

Photo by Leon Dadmun.

shown in the photograph was substituted for the one designed, intended to show a street winding up the hillside between overhanging and narrowly-placed houses with a campanile appearing over the roof tops in the distance. Unfortunately, in order to form a contrast to the dark painting and lighting, and the tragic tones of the preceding and following scenes, this setting was to be displayed under the conditions most trying to its painting; in the garish stage imi-

ings; and, finally, the long row of cypresses in the distance—all combining to hold in and depress the imagination. The lighting was all in very dim and subdued violet effects thrown almost entirely from the side, so that no direct light was cast upon the painted drop. This left the distance purposely dark and gloomy and helped to preserve the illusion and insensibly prepare the audience for the impressiveness of the final scene that immediately followed.



SET VII.—A STREET IN MANTUA.

Photo by Leon Dadmun.

tation of the full-flooding sunlight of an Italian morning.

The exterior of Capulet's tomb, one of the most impressive settings supplied was, like the second scene in the first act, painted entirely upon one drop. Its effect was obtained by continued and reiterated insistence upon the sombreness of the atmosphere furnished by the architectural treatment and its environment; the gloomy cypress-shaded alley at the right; the few scattered grave stones; the dark brick structure with its forbidding arched and barred open-

The lights were kept subdued during the moment that the curtain remained down, so when it arose upon the Interior of the Tomb, this carrying-over of the atmosphere of the previous setting acted to make the cumulative grimness and sombreness of the new surroundings intensely more effective. Surroundings, too, that in treatment and coloring had all been conceived and carried out with the single intention of creating as much as possible of a mood that would prepare the audience for the double tragedy—all the more tragic

from its very seeming lack of necessity and inevitability—that closes the play.

Simple as was this setting—consisting of but substantially three drops, the last forming a back vista that carried around the circular colonnade indicated in the second—its effect was most impressive. The underground portion of the chapel with the dark staircase leading to the upper level was in front and, beneath the cumbersome brick and stone arches and

around and beyond them in the obscurity half appear the tombs and monuments to the dead and gone founders of the House of Capulet.

At noon, on the Sunday of the week given to this production, was started a complete rehearsal of dialogue, action, scenery, and lights that lasted until a quarter past two on Monday morning before the curtain was finally dropped on the last stage picture. This rehearsal,



SET VIII.—THE TOMB OF THE CAPULETS.

Photo by Leon Dadmun.

damp splotched and stained plaster vaultings overhead, reposed the white-draped bier of Juliet, lighted by four candles flaring in the drafty eddies of this gruesome place, and the corpse of her recently murdered kinsman, Tybalt, covered with a dark velvet pall. The scene was lighted only by the pale and sickly moonlight that filtered down from the barred windows of the dome above and cast upon the flagged floor of the vault the irregular shadows of the part-colored marble and brick columns of the circular arcade between; while all

representing only the third time that the company had gone completely through the play, found them letter perfect in their parts; and, during the long and fatiguing day not only they but every individual connected with the presentation from stage hands up, apparently inspired by this masterpiece of the great English dramatist, worked patiently and incessantly to render as perfect as was humanly possible each picture and scene.

When actual work upon the production was commenced, personal supervision was found to greatly facilitate mat-

ters and during the last week almost all my time between ten in the morning and ten at night was spent at the theatre. Through the final Sunday and Monday the scenic artist, Mr. LaMoss, and his assistants were working incessantly to finish up all the small and harassing details that always come up at the last minutes before an initial production. All of the foliage wings and accessories of the garden scene and some of the most important portions of the ballroom

force began work upon the play for the week following!

With the exception of the ballroom scene, taken later under even harder conditions, these photographs were made at the Sunday rehearsal and show the scenery in many ways still incomplete, the "profiles" or outlines around some wings and a few of the drops being yet uncut, and some parts entirely lacking. Later each setting was exhibited to better advantage and several minor



SET IX.—INSIDE OF THE CAPULETS' TOMB.

Photo by Leon Dadmun.

scene were built and painted during Sunday; some portions of the latter, vitally necessary to complete it, were, indeed, being finished on the paint-bridge over the rear of the stage at the moment the curtain arose on the first scene of the performance Monday afternoon; and by the time that the action moved along to this fourth scene they had been finished, lowered on the stage, turned around and hung in place, and the production was finally completed. And hardly was the strain removed before the theatre

changes made in the setting of the stage during the first part of the week all tended to improve and increase the effect of the scenery over what it appears in these reproductions. Painted, as they were, for certain specific effects of coloring and lighting, they also suffer from the much stronger and more direct light required to obtain the photograph; the omission of color, the different values of certain colors as they appear to the camera, and the stage, bare of the moving figures with which it was filled during

the action of the play, all combine to destroy much of the illusion and beauty of atmosphere and *vraisemblance* that was created in the theatre under those conditions that the scenery was designed to meet.

The first performance on Monday afternoon lasted substantially four hours. At the second performance, on that evening, exactly 48 minutes was saved on this acting time and that without a single change or excision in the lines or action of the play. This means that the entire amount had been made up in the quicker handling and setting of the scenery. As seventeen changes of scene were necessary during the performance, some idea may be obtained of the rapidity with which the stage hands had to work. After this second performance the acting length of the play varied between three hours and three hours and five or ten minutes.

As a mere matter of figures this production required for the scenery alone (not considering the long list of "properties," including the furniture and movable articles used in setting the stage) the painting anew of 14 drops, averaging from 40 to 44 feet wide and 30 feet high. Fifty-two wings and flats, running from 6 to 12 feet wide and 20 to 24 feet high. Six new borders, 40 feet long and 15 to 18 feet deep. Three sets of balustrades; 2 wells, 1 gateway, 2 walls, 2 seats, 3 balconies, 1 fireplace and a ceiling; making in all some 30,000 square surface feet of canvas to be covered, often with several coats of color. (In distemper painting, one coat goes on right over another and covers up the one upon which it is superposed.) All this work was done within the limited time allowed by the scenic artist regularly connected with the thea-

tre, Mr. E. La Moss—to whose interested assistance, long experience and artistic skill much of the result is due—with but one assistant and a paint boy, except during the last two days, when two extra men were put on to help finish up and complete the ballroom interior.

In this country, where even the most elaborate American productions are customarily based upon, if not exactly copied from, earlier presentations by some one of the London Actor-Managers, such as Sir Henry Irving, Mr. Beerbohm Tree, or Mr. George Alexander the limited time allowed, by the scenic "Romeo and Juliet," made at a Repertoire Theatre playing to popular prices with a complete change of bill every week, becomes even the more remarkable. In the history of the theatre in this country it appears as perhaps the first occasion when an entire professional production has been directly painted under the supervision and from designs made with a due regard for historic and architectural accuracy by an architect especially engaged by the management for that purpose. And it is believed that the success of this experiment should prove that such authoritative and well-considered settings, truthfully depicting both probable and possible surroundings, may be properly depended upon to greatly increase not only the educational value but the essential moods and atmosphere that should surround the productions of our Classic dramas with a theatric effectiveness that will form those backgrounds best suited to bring out and accentuate the highest work of the actor.

Tichnor House, 9 Park Street, Boston, May 11, 1905.



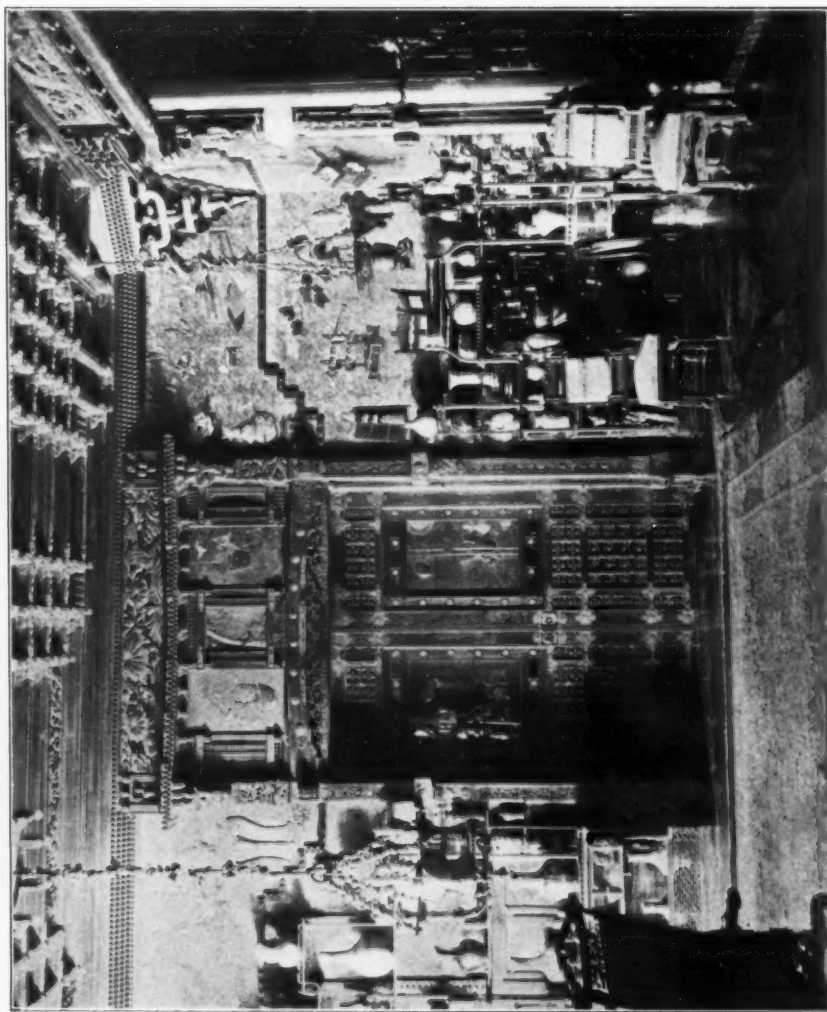


FIG. 1. JAPANESE ROOM IN THE MARQUAND HOUSE, NEW YORK CITY.

## J The Famous Japanese Room in the Marquand House.

In the house of Henry G. Marquand, when built, there was prepared a room for the reception and display of a considerable collection of Chinese porcelains and other art objects from the extreme Orient. This collection formed a considerable part of that large Marquand sale which was the sensation of New York in the autumn of 1903, and since the time of that sale the shelves and pedestals, the brackets and cases ranged along the walls of the room, and specially fitted for the reception of the pieces which they were intended to display, have been vacant. It is, therefore, more easy than before to study the actual design of the room and the minute and careful arrangement of its many details. The effect proposed is largely a thing of the past—that effect that was never intended to be complete without the porcelains in their proper places; but the means by which that effect was produced are, to a great extent, more readily traceable to-day than they were five years ago. For this reason photographs of the room as it now is have been prepared, and are shown in these pages side by side with photographs made while the room was still in use, as it was intended to be used, as a museum of works of Oriental art.

Mr. Manly N. Cutter undertook the design and arrangement of the room. A great number of valuable pieces of Japanese art were accessible at that time—panels of lacquer-ware of extraordinary beauty, such as had formed the doors of cabinets, or had been made simply as decorative pictures to hang on the walls, as a painting or a bas-relief or a piece of inlay might be displayed. These elaborate pieces were bought freely by Mr. Marquand, and laid aside for the time of utilization. Moreover, an order was given for embroidery to be made in Japan upon a rough-surfaced silk, which should cover all the walls above the wooden sheathing and

shelving (our more immediate subject to-day); but this embroidery was not entirely successful. The orders given for it (as I heard at the time, and have heard frequently since) were for that beautiful flower-work, that charming semi-realistic design in leaf and spray, flower and fruit, which the Japanese have made their own. In some way the order went astray or was misinterpreted, and a composition made up of Japanese utensils and furniture was substituted for it. Here are to be seen pictured the cabinet with its open shelves and closed compartments, its doors and cupboards, and, upon its shelves, boxes for decorative writing paper, other boxes for ink or for pencils, a book or two; then the koro, or incense-burner, standing on a delicately modeled or richly lacquered support with three or four legs, and an elaborate lambrequin to cover their connection with the table-top. Here are the sword racks with the weapons of the Samurai, the musical instruments—the larger boxes for perfumes and for drugs—the bronze flower-vases with cut flowers or with plants growing freely in mould. Here are the larger and more showy vases, brilliant in themselves, and again holding either flowering branches or peacock feathers. Here are pipe-cases, braziers for burning charcoal, larger stands with small utensils of various kinds grouped upon their top; and here are a few flowering sprays and branches mingled with the rest. Out of all these objects surface decoration has been made, as the Japanese know so well how to do; but this was not what Mr. Marquand had desired, nor has it to our Western eyes that universal charm which is found in the designs based upon pure nature, with which the Japanese have made us so familiar.

No more need be said of this misfortune, nor of the fact that the ceiling

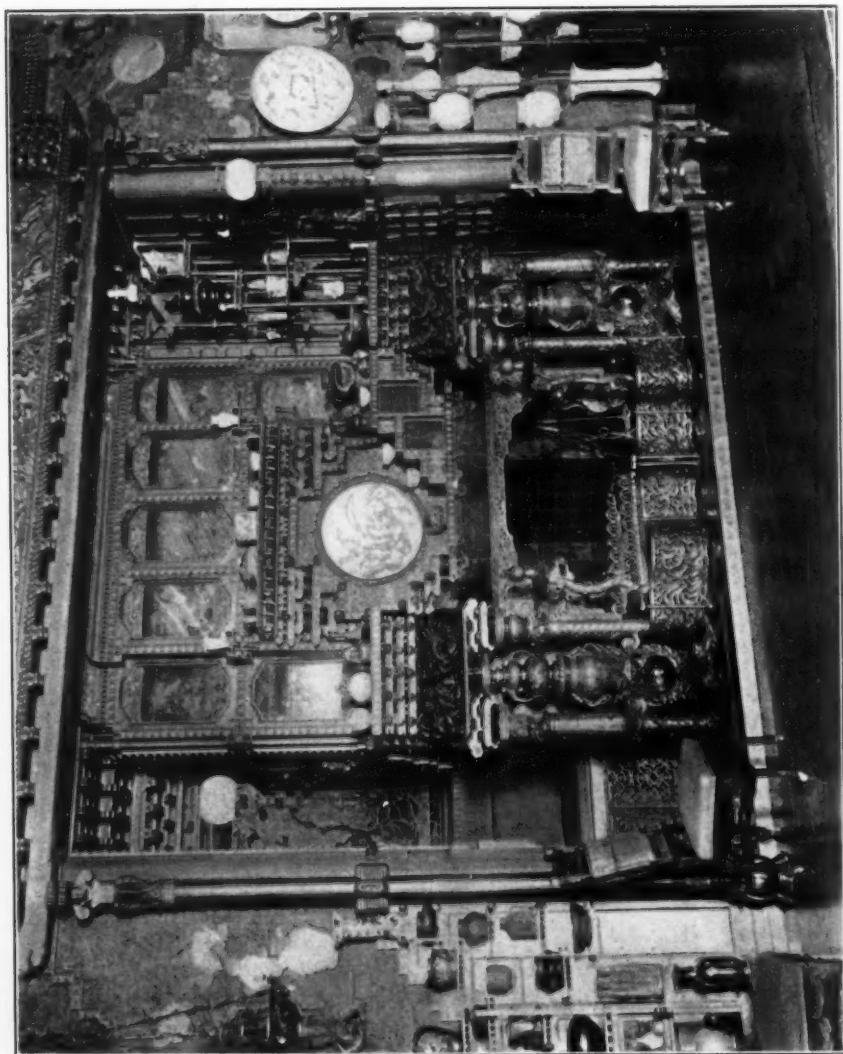


FIG. 2.—THE JAPANESE ROOM IN THE MARQUAND HOUSE.

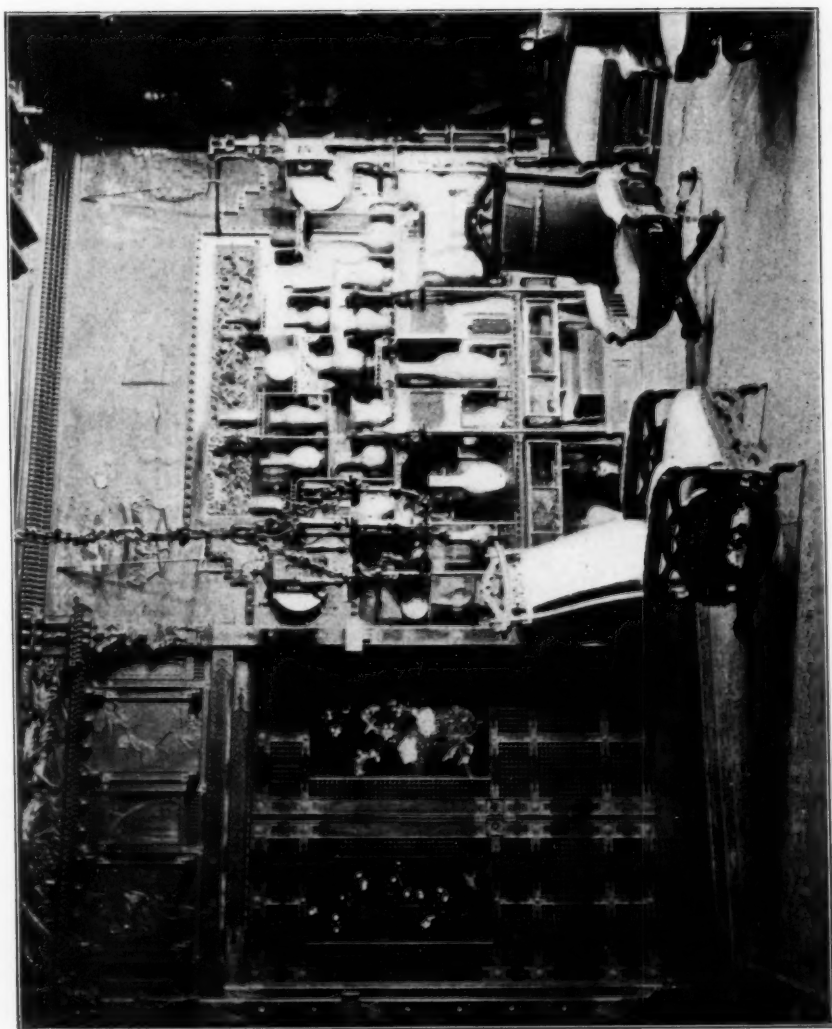


FIG. 3. THE JAPANESE ROOM IN THE MARQUAND HOUSE.

could not be a really constructive ceiling; for obviously the elaborate scheme of interlacing bars which the architect felt that he needed overhead could never be the supporting structure of the floor above. In an American house of great size and with large spans of floor timbers, those floor timbers must be deep and heavy, they must be solidly framed and large in section, "deep" as the saying is with a great vertical dimension, in order to give perfect stiffness to the room above. We do not, in crossing the floor of a second story room, expect it to sway beneath us and vibrate like the hurricane deck of a steamboat; we look for solidity, like that which is felt in walking on a terrace out of doors. And so the twelve-inch wooden beams do the work; or, in a more advanced time the eight-inch rolled steel beams of some approved section; and any such ornamental ceiling as this has to be hung up afterwards, even as you put a decorative panel into place because it is decorative.

What is specially valuable in the room is, I think, the combination of shelves and cupboards for large and small porcelains with the dado, the door-frames and doors and the elaborate fittings about the mantelpiece. The effect of the whole room is made up of these; no one need look beyond them to be kept busy for many a minute of close examination, and then he will be sure that he has only half seen the complicated design of the apartment. Fig. 1 shows the wall which is opposite you as you enter the room from without, passing through the entrance hall, opening the door and stepping in. You look "westward" as it is our custom to say, though in reality the direction is more nearly northwest—you look toward Fifth Avenue—and as you do so you see the pair of sliding-doors in the middle of the wall before you, with the over-door piece made up of elaborate carving in wood with lacquered panels inserted; and on either side of this doorway the cluster of horizontals and uprights which make up one section of the museum accommodations which

have been hinted at above. Another and more detailed photograph will show just how these things are put together; but let us consider first the doorway itself and the doors which fill it. And here it may be stated that all the woodwork is of that curious red-brown Brazilian wood known as Quebracho wood. It takes a beautiful polish, a polish like ivory, and its warm color, when treated as delicately as it was treated here, is most grateful and pleasant to the eye, combining perfectly with the white and bluish-white wares which form so large a part of the ceramic display. The carving was done by the old firm of Ellin & Kitson.

Mr. Cutter must have set himself to the work of design and drawing-out with the utmost deliberation, and with a painstaking ambition rarely seen. It was impossible for such work to be properly paid for in money; omitting for the moment all consideration of decorative carving, he must have given nearly as many hours to the work as the wood-worker himself, days and weeks of patient working over the drawings, even if such personal supervision could be given as would allow of changes at the last moment and on the spot. In this way only is the almost infinite variety of the fittings to be explained, and their extraordinary novelty of conception understood, even by a most practiced designer of such matters.

The doorway in front of us in Fig. 1 shows above the doors two Japanese lacquer panels with details in high relief, some of these details being of foreign substances encrusted in the polished surface, others of the lacquer itself. Two similar panels, somewhat larger, are framed into the doors; others in another illustration will be more readily seen. The door is formed of the Brazilian wood named above, the carvings of the doors and those of the trim around the door, the strange sculptured transom above it and the elaborate rama—if that is the proper word for a piece of carving which is not pierced through and through—at the top of the room. The smaller ornaments, namely,



those little disks which, ranged in rows, frame in the large lacquer panel, the little panels between the disks, and those cross-shaped and flower-shaped appliques which are seen at the meeting of every two bars or members of the frame below and above, all are of bronze; and most of these were made here in New York, many of them at the workshops of the Henry - Bonnard Bronze Co.

Now, if the visitor turns toward his right he has, in front of him and facing the great windows, the mantel-piece and fire-place shown in Fig. 2. He will notice at once that this wall has two axes, the great bronze disk above the fire-place not being centered on the fire-place, but centered on the room. It is a perfectly legitimate thing to do, whether necessary or not, and the fact that it is cleverly and well done is visible now in this, that one does not detect it readily. The uniformity of the surface described above—the brownish-red wood and the purplish-brown silk—is broken here, at the chimney end of the room, by the prevalence of bronze, for the most part of the usual dark brown patina, common in the work of Japan of not very ancient date. It cannot be quite approved or accepted by the lover of Oriental art, the free use of the Eastern bronze vases by the American designer. He has pulled them to pieces to make columns of them and has built them up, cylinder upon cylinder, bulb upon bulb, so as to give on either side of the fire-place a group of columns or at least of uprights five feet high, carrying a structure of carved wood which seems sufficient to account for the support; but still one regrets the bronze vases. They were not of unusually precious quality nor of great rarity, but they had a right to exist in their original character as conceived by their maker. The narrow recess with a seat in it on the left hand of the fire-place goes through to the outer wall and the panel with leaded sash is really a window, letting a certain amount of light into this most remote corner of the large room. The seven

large panels of the upper wall are Japanese lacquer of extraordinary beauty. There are also smaller panels of lacquer and some panels of bronze with very minute and delicate figure subjects, also brought from the East.

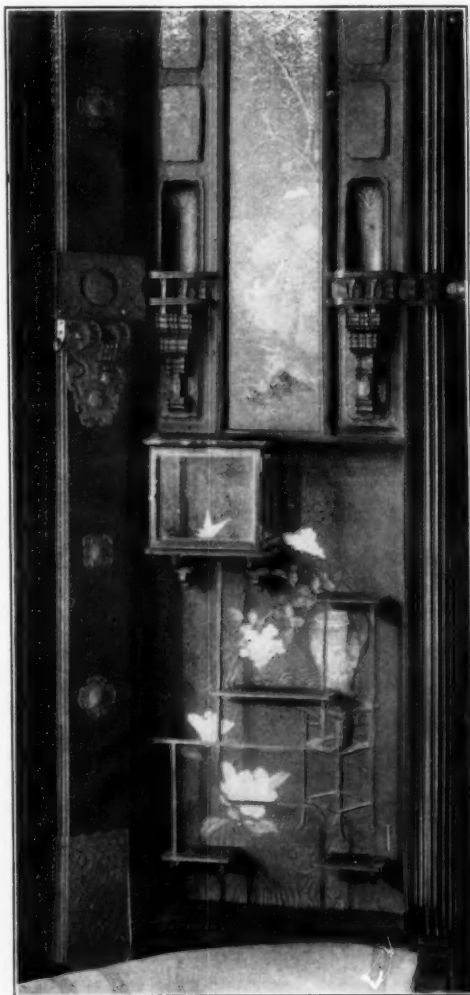


FIG. 1A. WEST CORNER OF THE JAPANESE ROOM IN THE MARQUAND HOUSE.

If now the visitor turns once more to his right, he will see very nearly the wall shown in Fig. 3; though the picture shows only that half of the wall which is nearer the window and farther,

from the fire-place. This door is in many respects like the one opposite, showing no more diversity of design than one expects in so elaborate a room.

It will be well now to consider the shelving a little more in detail. Fig. 1A is that corner of the room between the window wall and the wall shown in Fig. 1. In looking at it as we do in taking this picture, Fig. 1A, we look

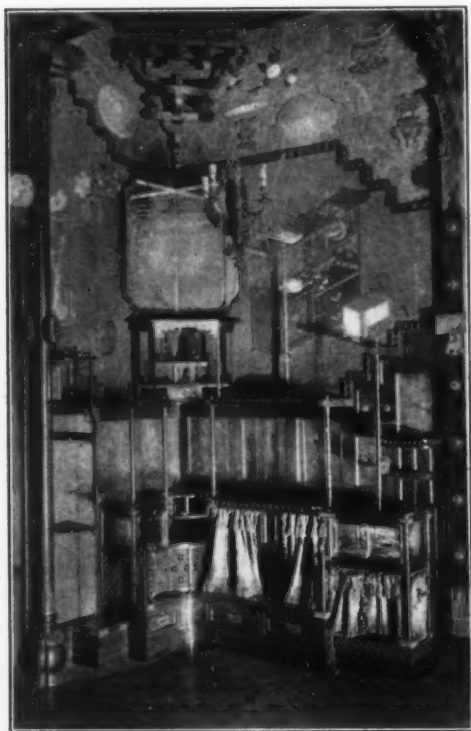


FIG. 1B. THE WINDOW JAMB IN THE NORTHWEST CORNER—THE JAPANESE ROOM OF THE MARQUAND HOUSE.

also toward the corner of Fifth Avenue and East 68th Street. This photograph was taken after the porcelains and potteries of the collection had been removed, and on this account the minute shelving can be the better seen. The reader is requested to try and make out the careful design, and the putting together of parts, so delicate, and yet so strong and trustworthy. The nearly cubical box-like shape on the right and

directly opposite, and another at the left, are glass-cases intended to afford shelter for cups and jars of exceptional importance. Also farther on the right and below is one of a little row of sliding doors which enclose a shelf where delicate lacquer boxes used to be kept, and below, obscuring this, is a narrow silk curtain with fringes which could be drawn across that part of the front. Apart from this, everything is open shelving carried on very light supports; shelves of very great variety of form, narrow and wide, set close upon one another vertically, so as to allow only five or six inches of clear space, and again set far apart. Look also at Fig. 1B, in which is shown the window jamb on that same side; in fact the fluted column seen on the right in 1B is the same column that we see on the left in 1A. Here in 1B again is a glass box with hinges and a turnbuckle with a knob, and below that are shelves, some long, some short, carried on slight and delicate bars of wood almost lost in the elaborate background of that exquisite Japanese work where the natural fibre of the wood is partly picked out and cleaned out, so as to leave the grain as a decorative pattern, and upon this a still more elaborate and significant pattern of great white peonies and their leaves above—of some great spreading flower like the magnolia below. Then still higher in the wall are little niches with brackets below them, and between these a still larger panel of Japanese lacquer, a splendid rarity worthy of any collector's attention. The sheathing of the uprights at the bottom and the large and small sockets and flat mounts emplaned upon them at different heights are all of the same bronze-work as those mentioned in connection with Fig. 1.

Fig. 2A is the corner at the right of the fire-place when you stand regarding it. The light from the windows falls fully into it, and one may see just how the structure has been completed. Rising from the floor is a podium, as it were, with drawers; and on the left a square pedestal with little square shelves above; then above the podium a system

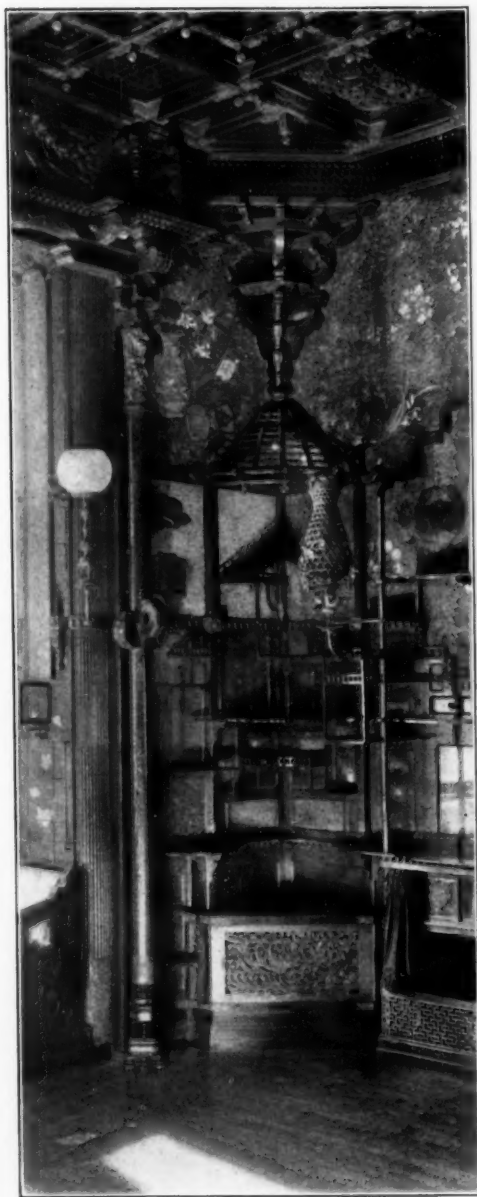


FIG. 2A. EAST CORNER OF THE JAPANESE ROOM OF THE MARQUAND HOUSE.

of shelves intended to be screened with silk curtains and a bit of enclosure with wooden grating which opens to the hand by sliding one of the grated doors past the other. Above this again and in the

middle, partly screened by the curtains which are wider there, a row of glazed boxes in which, as mentioned above, very highly esteemed morsels of porcelain or lacquer may be put in comparative safety and out of the reach of too hasty fingers. Again above those broad shelves, some more continuous than usual in the room, and alternating with these and rising out of them some of the small round and oblong shelves with little galleries in front of them which are intended in every case for single pieces or couples—for the vases of the collection now scattered. Fig. 3A is a part of the wall on the eastern side of the room; the upright on the left is one trim of the door through which you pass in entering the room from the hall. This piece of walling is, then, between that doorway and the windows whose full light can be seen shining on the panels at the right of the picture and partly concealing them by its great reflection. The same general system of construction has been carried out here and the shelving and enclosed boxes for the display of delicate objects are managed in the same way. The broken and zig-zag band of ornament of carved wood which continues as it were, the framing of this piece of cabinet work on either side is perhaps less fortunate than the actually constructed shelving and its back-ground. One could wish a very firm bounding line here and there, a feature which indeed a Japanese designer would hardly have failed to give to a piece otherwise so varied and fantastic.

When it is deliberately proposed to carry out in American building pieces of decoration of ornament, absurd results are expected partly as a matter of course. The Chinese craze of Horace Walpole's time occurs to the memory; one remembers the ridicule deservedly shot at the fancies of the day, the

"Wooden arches bent astride,  
A ditch of water four feet wide."

And that we are told

"The traveler sees  
A temple truly all Chinese,  
With many a bell and tawdry rag on  
And crested by a sprawling dragon."

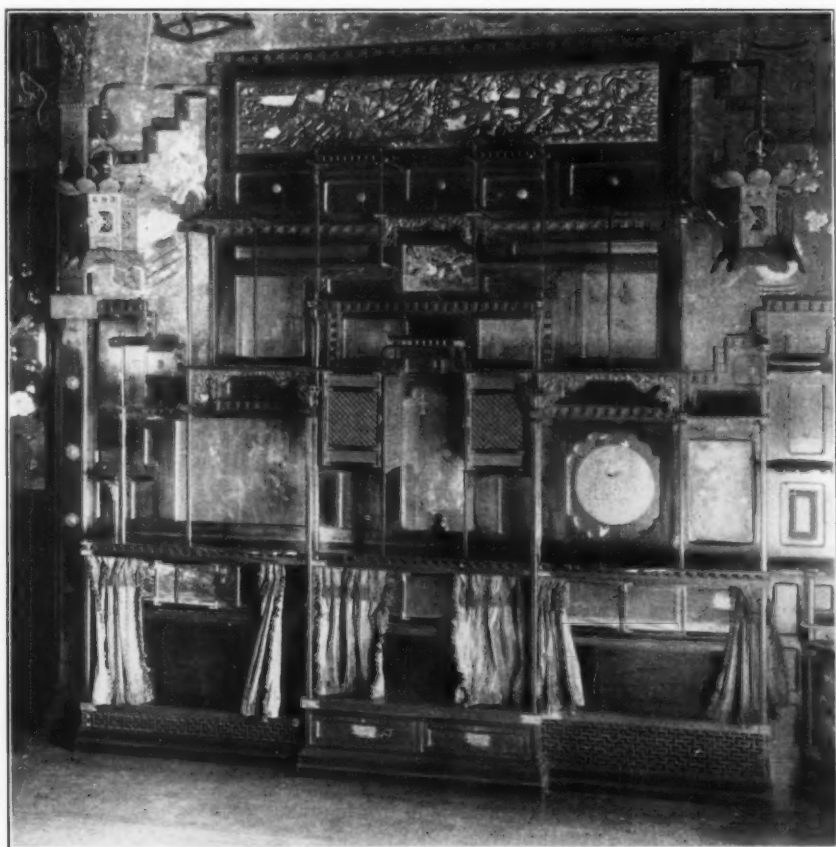


FIG. 3A. THE JAPANESE ROOM IN THE MARQUAND HOUSE—THE MIDDLE OF THE SOUTHEAST WALL.

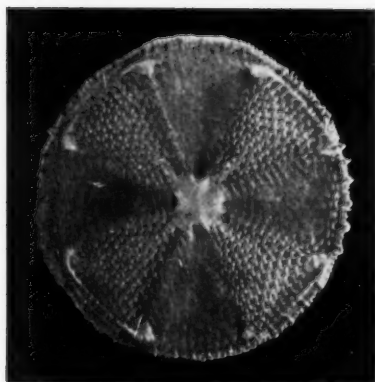
Now of course the writer of those lines did not understand the utility of the bells or significance of the dragon; nor could he sympathize with Oriental design. It was left for our more inquisitive day to learn something of foreign beliefs and foreign traditions, and to be able to see the charm of that which the Chinaman finds charming. We know of rooms in our Occidental cities, here and there, in which exquisite softness of color combined with beautiful design in embroidery and in textile material makes the keynote of that which still remains an American sitting-room. Such a room may not differ from others in the same house, in the squareness of its walls, the flatness of its ceilings,

the placing of its windows and fireplace; but walls must have a certain color, curtains must be of soft, woven stuff, the cover of a grand piano must be delicate and may be rich, a great cabinet which is built on purpose to hold "curios" may be of Eastern wood and beautifully handled and finished so as to be attractive to the eye, and inlaid with delicate metal-work for fastening hinge and pull; and these refinements give an Eastern grace to the hard Yankee facts. So in the much more elaborate room we are considering, the question being how to set off aright the rich display of far Eastern works of art and to retain while doing so that part of the Oriental's own feel-

ing which would forbid him to range his vases on a long continuous shelf seven feet high above the floor, the well advised designer of the Marquand "Anglo-Japanese" room undertook to give its own shelf to every vase and to impart to the sculpture, the inlay, such contrast of surface and of color as Oriental practice could suggest to him. The

result has always seemed to me extremely attractive; and while I admit that much of this is in the beauty of color of the wood, and of the bronze, yet I see much to rejoice in when I examine the details bit by bit and grasp the significant intention in every separate detail.

*Russell Sturgis.*





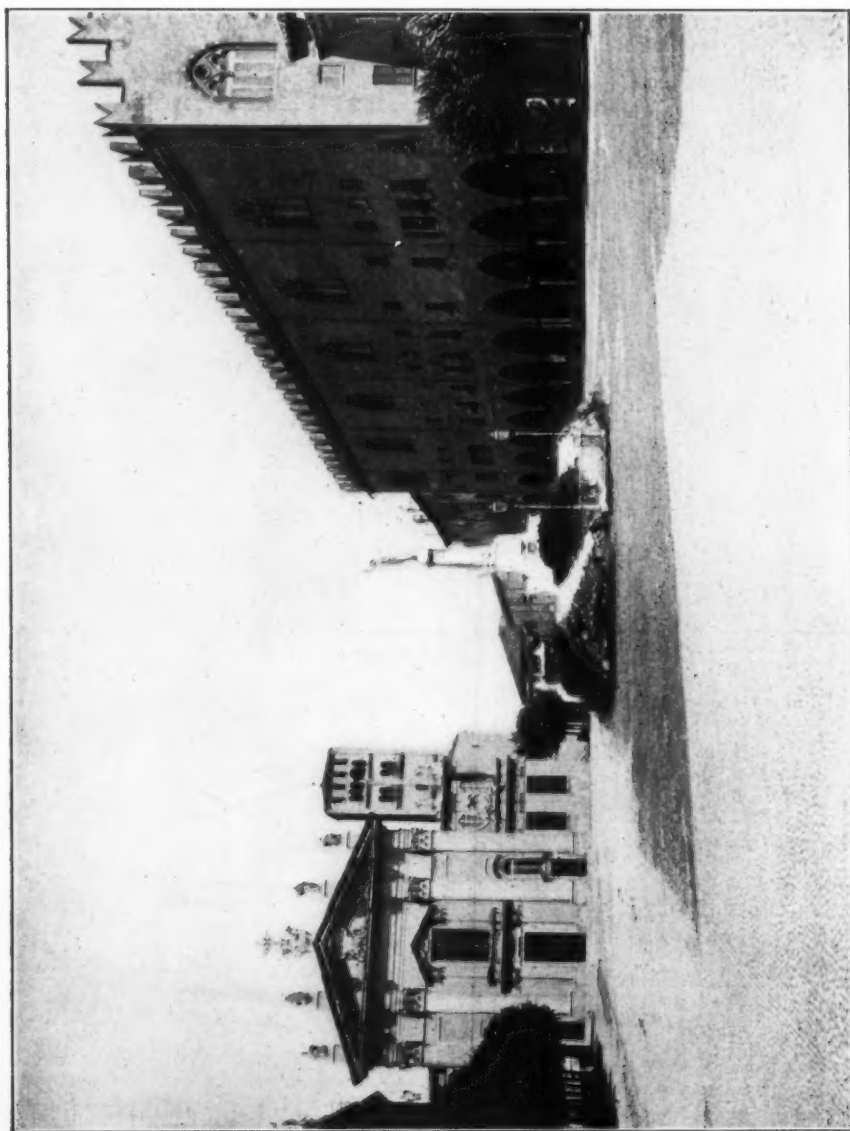


FIG. 1.—THE DUCAL PALACE AT MANTUA.

## Decorative Painting in Mantua, Italy.

Those who enjoy decorative painting, and travel through Italy, should not fail to visit Mantua, not far from Milan. It was formerly one of the capitals of the Peninsula, though now fallen from its ancient glory. You must remember, that during the Renaissance, Italy was divided into several political provinces, each of which boasted its dukes, its princes and its marquises. The power which they exercised over their respective principalities was handed down from generation to generation on the same principal of succession which exists in our present kingdoms. The dukes and princes were often struggling with one another, besides leading a very disturbed existence. Yet these Italians of the fifteenth and sixteenth centuries maintained the culture of beauty. In their palaces and chateaux they brought together the greatest artists, painters, sculptors and industrial artists, with the sole purpose of beautifying their halls and chambers, with every variety of ornament. Thus, traveling through the Peninsula, it is not of uncommon occurrence, to stop in some city, dead at the present, yet its story would fill pages of highly interesting reading the History of Art.

In the fifteenth and sixteenth centuries Mantua was prominent among the little kingdoms of Italy. Its ruling dynasty were the Gonzagas. These, having continued the work on the ducal palace, begun in the fourteenth century by the dynasty whom the Gonzagas had ousted, namely, the Bonnacolsi, wished to surround themselves with the greatest artists of the Renaissance, to adorn their palaces with the most exquisite decorations which at that time were known. Thus, aside from the architectural grandeur of the ducal palace at Mantua, you will see halls and chambers, decorated with a taste and richness, which to-day would be difficult to

equal. I do not exaggerate when I say that the ducal palace in Mantua is the finest in Italy.

Its exterior is Gothic; but of that sombre and serious type which gives the structure a military stamp. The exterior of the Palace recalls the beginning of that mode of architecture which dates from the fourteenth century.

On the other hand, the Renaissance interior dazzles the eyes with its permanent decorations—the paintings and stuccos, the woodwork, and above all the ceiling are of a surpassing beauty. The contrast arises, indeed, from the psychology of its inhabitants. These people, who, as I have just told you, were in a continual struggle, were nevertheless deeply sensible of æsthetic enjoyment when once they had entered their dwellings. It was a time when woman played an important part; in fact, more so than to-day.

During the period of embellishment of the ducal palace at Mantua, the dynasty of Gonzaga brought forth one of those rare women in whose goodness were united wisdom and taste. In mentioning her, we name one of the most celebrated women of the Renaissance—Isabelle d'Este. This beautiful and virtuous woman had married at the age of sixteen, the fourth Marquis of Mantua, Francesco Gonzaga. She came of a family in which the love of knowledge was very intense. Her alliance with the ruling dynasty in Mantua brought with it all the genius and love of a woman devoted to beauty and virtue. Thus Isabelle d'Este happily found herself in rapport with the most celebrated artists of her time; Mantegna, Giorgione Leonardo Grambellino, Perugino, Gran-cristofora Romano, Costa, and, perhaps, Michael Angelo. In the ducal palace at Mantua, Mantegna, the hero of painting of his time of northern Italy, erected a monument to his glory; above



FIG. 2.—CEILING OF THE DUCAL PALACE AT MANTUA.

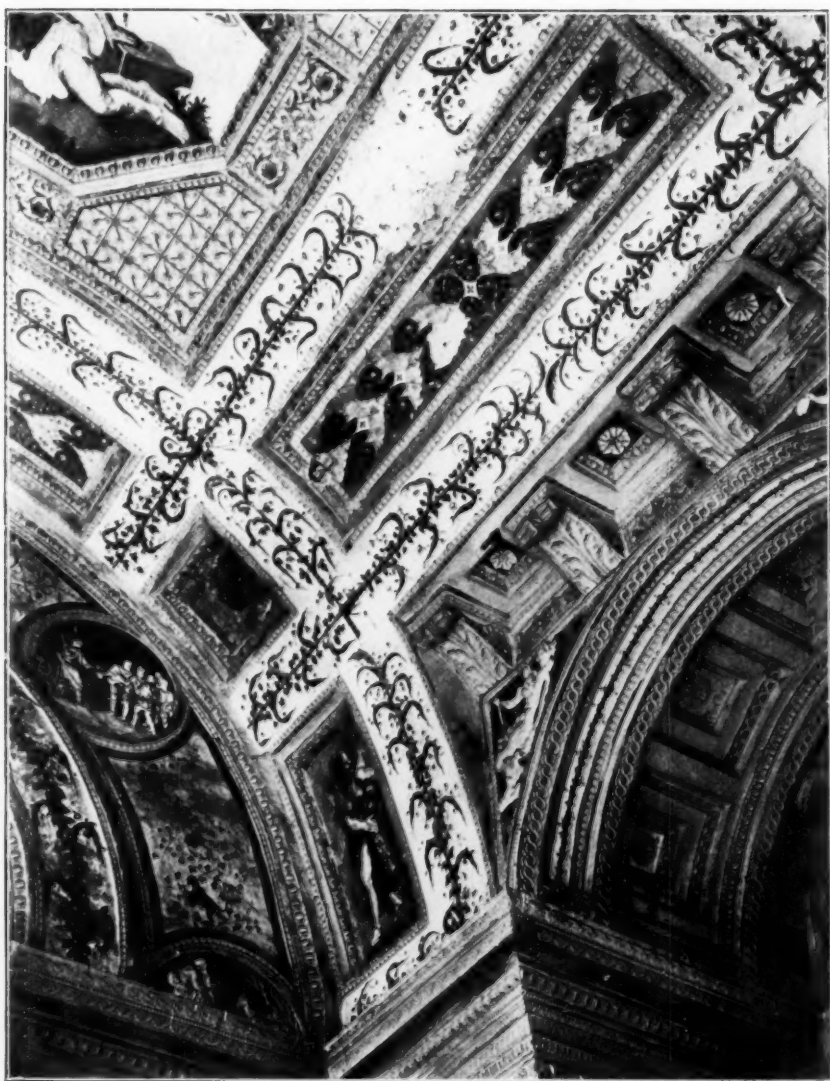


FIG. 3.—CEILING OF THE DUCAL PALACE AT MANTUA.

all with the frescoes of the so-called Sala degli Sposi (The Hall of the Betrothed), the ceiling of which is reproduced. It is a masterpiece.

But before speaking of this or that artist, you must know that our ducal palace is very far from having the appearance which it originally had. Several of its halls are in complete ruin, and the largest salon is in a hopeless condition. At present the Government is

it have been removed, and are now embellishing foreign museums. For example, the celebrated "Triumph of Cesar," which England possesses at Hampton Court, once hung in one of the halls of the ducal palace of Mantua. It is a work of Mantegna, as well as the "Triumph of Scipio," in the National Gallery of London. I can further state that those who have not seen the cycle at Hampton Court cannot pride them-



FIG. 4.—CEILING OF THE DUCAL PALACE AT MANTUA.

interesting itself in the old palace, and giving it much more attention than formerly. Although we cannot remedy the disasters which past negligence has caused, we can care for that which has remained. Let us hope that the future will be more respectful to the building than the past has been to it.

Without stopping to describe the ruined ceiling, I will limit myself to a description of the paintings which formerly adorned the ducal palace of Mantua. I should state at once that many of the treasures that once belonged to

selves of having a thorough knowledge of Mantegna.

Furthermore, I wish to add that the Louvre is also adorned with pictures which once decorated the ducal palace of Mantua. The same applies to the National Gallery of Munich. And some of the tapestries can be found in the Imperial apartments of Emperor Francis Joseph at Vienna. London also possesses pictures of the Emperors, painted by Titian, and destined for our ducal palace. English art lovers, particularly from London, have so thoroughly ap-



preciated the beauty of our palace that, in the museum of Kensington, they have tried to reproduce one of the most exquisite apartments. I have seen it in London; but I must say that the reproduction is not very precise. The Museum of Kensington aimed at having the Paradise Room (Cabinet of Paradise) in relief. The model in the museum is decorated with pictures which did not belong to the room reproduced, but to the "Studiolo" (a little study room), called "di Corte Vecchia." The researches and studies, carried on for this purpose during the last few years, and which I have collected and published in the London Studio, should have suggested the correction of the model exhibited in the Kensington Museum. At least there should be a little enlightening explanation below the reproduction.

The Cabinet of Paradise which I have just named belongs to one of the finest apartments of the palace. It is called the Cabinet of Paradise because of the splendid panoramic view which one gets from its windows. It takes in one entire side of the ducal palace. We owe this to Isabelle d'Este. You should not fail to see the beautifully carved wood-work of the ceilings, all of which are gilded. It is to be regretted that the walls have been stripped of their original ornaments such as that "Studiolo di Corte Vecchia," which has caused such confusion with the model at Kensington. The responsibility should really be placed at the door of Griarte, who was not very precise when he wrote about it. The "Studiolo," or the Little Study-room, is also known by the name, "a presso la grotta" ("Near the Grotto"). It was part of a second apartment of the palace which originally contained quite a number of paintings; two of Mantegna, two of Lotto, now in the Louvre, one of Perugino, also in the Louvre, representing the struggle between Love and Chastity.

I have mentioned a first and a second apartment. Were I to dwell at length on the ducal palace I would have to write about other apartments, as well as numerous halls, salons, sleeping cham-

bers, work rooms, courts and gardens, because the building in question is of such extraordinary vastness. One visit would never suffice, to yield both pleasure and profit. I am giving but a meagre idea of this vatican of Mantua. The halls, the salons, corridors, and courts are so interlaced that it is not difficult to lose oneself in this immense maze. Here, there is always to be found that innate pleasure, by those whose souls are open to esthetic emotion.

The ducal palace is not all that there is to a visit. A visit is not complete if you fail to see the palace of the Sea on the other side of the city. Its beauty is an artistic complement of the ducal palace.

The second palace represents the transformation of an estate, formerly destined by Francisco IV. Gonzaga, for the stables of his celebrated stud. The change was executed by Giulio Pappi, called Giulio Romano, who not only interested himself as architect, but also as painter, figuriste and decorator. Thus finally, our master of arts, because of his work on the Palace and for his direction of the work on the ducal palace (Giulio Romano continued during the sixteenth century the work of his glorious predecessors of the ducal palace), was made schoolmaster in Mantua. The painter and decorator should not fail to visit Mantua, which he should regard as the "Terre promise" of his art.

Giulio Romano was a disciple of Raphael. He was a master who possessed the sense of decoration to a very high degree. As a painter and figuriste particularly his work showed a genius imbued with a ready taste, full of imagination and force. Neither was our master lacking in rapidity of execution. For decorative purposes he loved mythological studies to a high degree.

The most remarkable hall in the Palace is the Chamber of Psyche, which contains the richest and most pleasing frescoes of the palace. The walls are entirely covered with vast landscapes. The ceiling was painted by pupils of Giulio, to whom the palace of the sea is



FIG. 5.—DECORATION IN THE DUCAL PALACE AT MANTUA.

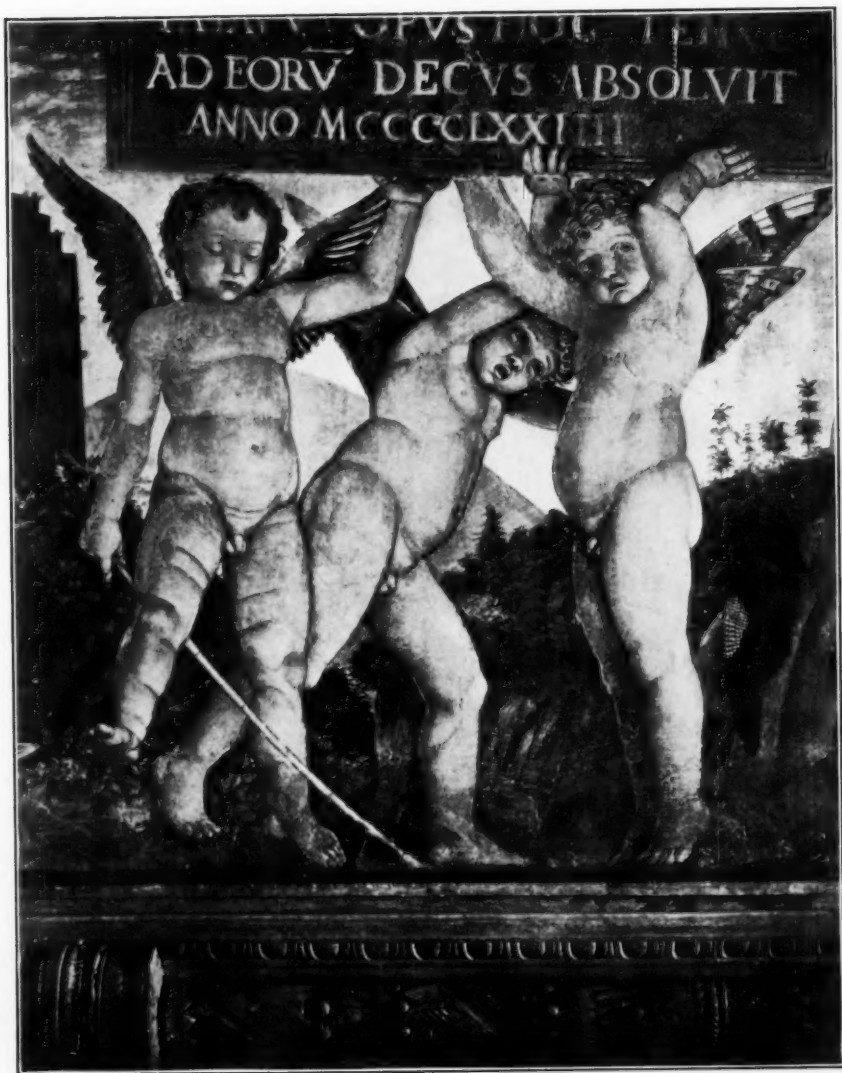


FIG. 6.—DECORATIONS IN THE DUCAL PALACE AT MANTUA.

indebted for one of the most bizarre halls that one can imagine, namely, the Hall of Giants. The figures that it contains are truly gigantic; twelve—fourteen feet high, in all sorts of positions, among enormous masses of rocks. The painting of the walls blends with that of the vaulted hall. The appearance as a whole is absolutely colossal. Its principal executor was Rinaldo Montovano; but we cannot exclude Giulio from partaking of the glory of this grand mass of gigantic painting.

As it is; be it in the ducal palace, or in the Palace of the Sea, this painting, wherein the fulness, the movement and decorative grandeur, impress one as a thing unheard of, is interspersed with a mass of that grotesque, odd, fantastique painting with which Italy has been largely decorated since the Hellenic and Pompeian eras. Ceilings and walls are interwoven with curious floral effects, extravagant figures, improbable person-

ages and animals. Mantua itself is truly the most beautifully adorned with this order of decoration.

I have spoken of the dazzling efflorescence of this painting which decorates cabinets, halls and corridors. With my description I hope to have given you a good idea of the painting at Mantua. Without touching on the grandeur of the celebrated halls of the Vatican, the painting at Mantua as a whole, presents a most harmonizing effect of beauty and clearness. You must notice the splendid idea of proportion between the ornamentation of each room and the size of the apartment. All of which gives a new and original importance to our Giulio Romano and to his pupils, to whom Mantua is indebted for this part of the decoration of the Mantuan palaces. And my readers, in whose hearts there is a place for Beauty, pure, elevating and fascinating, will surely desire to visit them.

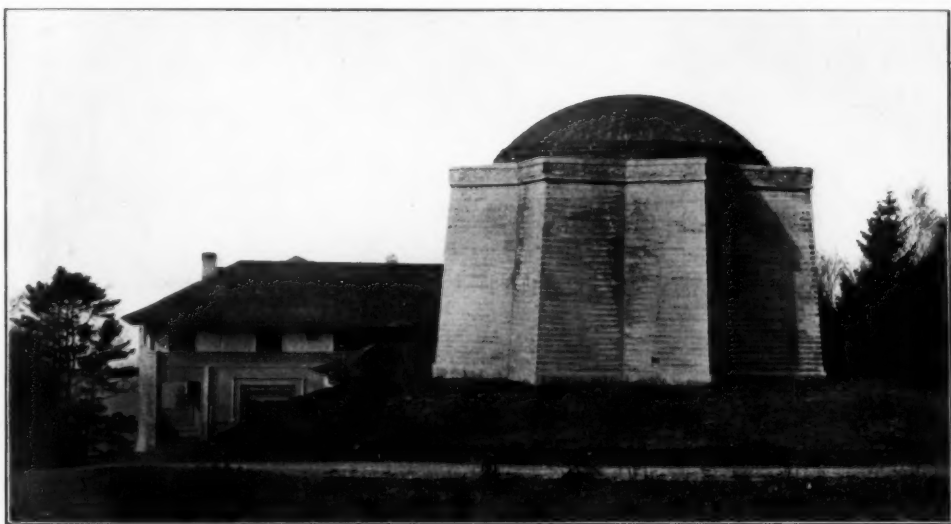
*Alfredo Melani.*

## ✓ A Novel College Chapter-House.

One of the peculiar advantages of the practice of American architecture is the inexhaustible variety of the special problems of design, which are offered to its practitioners. Our country contains every conceivable variety of climate barring only the extremes of tropical heat and barren cold; it contains every variety of natural formation from vast plains to high mountains; and its inhabitants, differing as they do among them-

larly in the West, has been exhibiting an increasing flexibility without losing a wholesome respect for tradition; and this flexibility is the result of a sincere attempt to make the forms of a particular building an expression both of the conditions which environ it, and the function it serves.

A good example of a peculiar architectural problem treated in an equally individual way is to be found in



CHAPTER-HOUSE OF THE ALPHA DELTA PHI FRATERNITY.

Cornell University, Ithaca, N. Y.

Dean & Dean, Architects.

selves in ideas, traditions and needs, require construction of many novel and peculiar types of building. The full effect upon American architecture of this enormous variety of architectural opportunity has not yet begun to be realized, because it requires a mature method of design and a permanent structure fully to bring out the peculiar and exceptional nature of any special architectural problem; but of late years, American architecture, particu-

larly in the West, has been exhibiting an increasing flexibility without losing a wholesome respect for tradition; and this flexibility is the result of a sincere attempt to make the forms of a particular building an expression both of the conditions which environ it, and the function it serves. A good example of a peculiar architectural problem treated in an equally individual way is to be found in the chapter-house of the Alpha Delta Phi fraternity at Cornell University—illustrations of which accompany this article. The building is situated on a point of land jutting out over the valley, which is 350 feet below; and this peculiarity of the site determined the form of the house and many peculiarities of its plan. In designing the building the architects examined carefully the arrangement of some forty similar structures; and the examination had only



the result of showing them what not to do. In this instance the result of consulting precedents was a conviction that the precedents were useful only as warnings, so that the originality of the Cornell chapter-house is due to a well-informed conviction as to the necessity of novel dispositions both as to plan and design.

A chapter-house of a secret society, situated in the country and used by college students is a very different thing from the usual country clubhouse. The fact that the building is used by a

of the meetings held within it. It contains no windows, and presents to the uninitiated a massive sixteen-sided wall, made of Bedford stone, and with its section somewhat smaller at the top than at the bottom. It constitutes not only a thoroughly appropriate structure but, also, a very honest and impressive piece of stone-work.

In the main clubhouse the architect has worked along the same lines, and has kept his design extremely plain and business-like. Of course he has not neglected to make the clubhouse a habitable



CHAPTER-HOUSE OF THE ALPHA DELTA PHI FRATERNITY

Cornell University, Ithaca, N. Y.

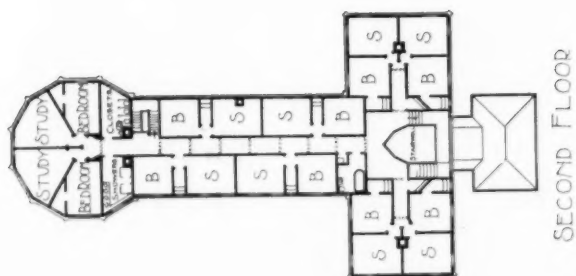
Dean & Dean, Architects.

secret society necessitates certain peculiar arrangements in the plan; and the fact that it is used by college students calls for some simplicity and even severity of treatment. Both of these conditions have been met by the architect in a most interesting way.

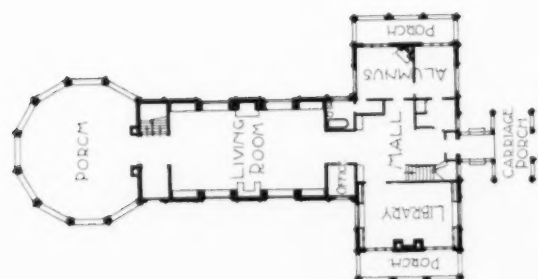
The lodge, which has been built as a memorial to Hiram Murray Little by his brother Bascom Little, is separated from the clubhouse and is connected by a well-heated and lighted underground tunnel. Its form was suggested by the Fraternity pin (the star and crescent), and its design by the secrecy

and attractive building; but he has done so by the use of the simplest and most legitimate means.

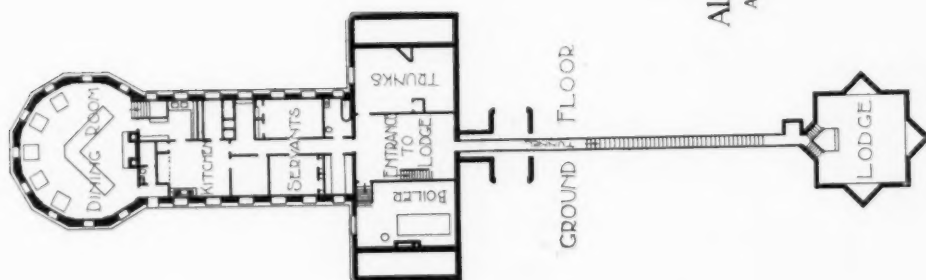
For the basement he has used Bedford stone, for the second story brick, and above plaster. The colors of the Fraternity, green and white, predominate in the exterior and in the interior; but they are so thoroughly subdued to a greyish tone that the green and white is only present by suggestion. The basement is made solid by the thickening of the walls at the bottom; the angles of the enclosed porch on the first floor are emphasized by sharp projec-



SECOND FLOOR

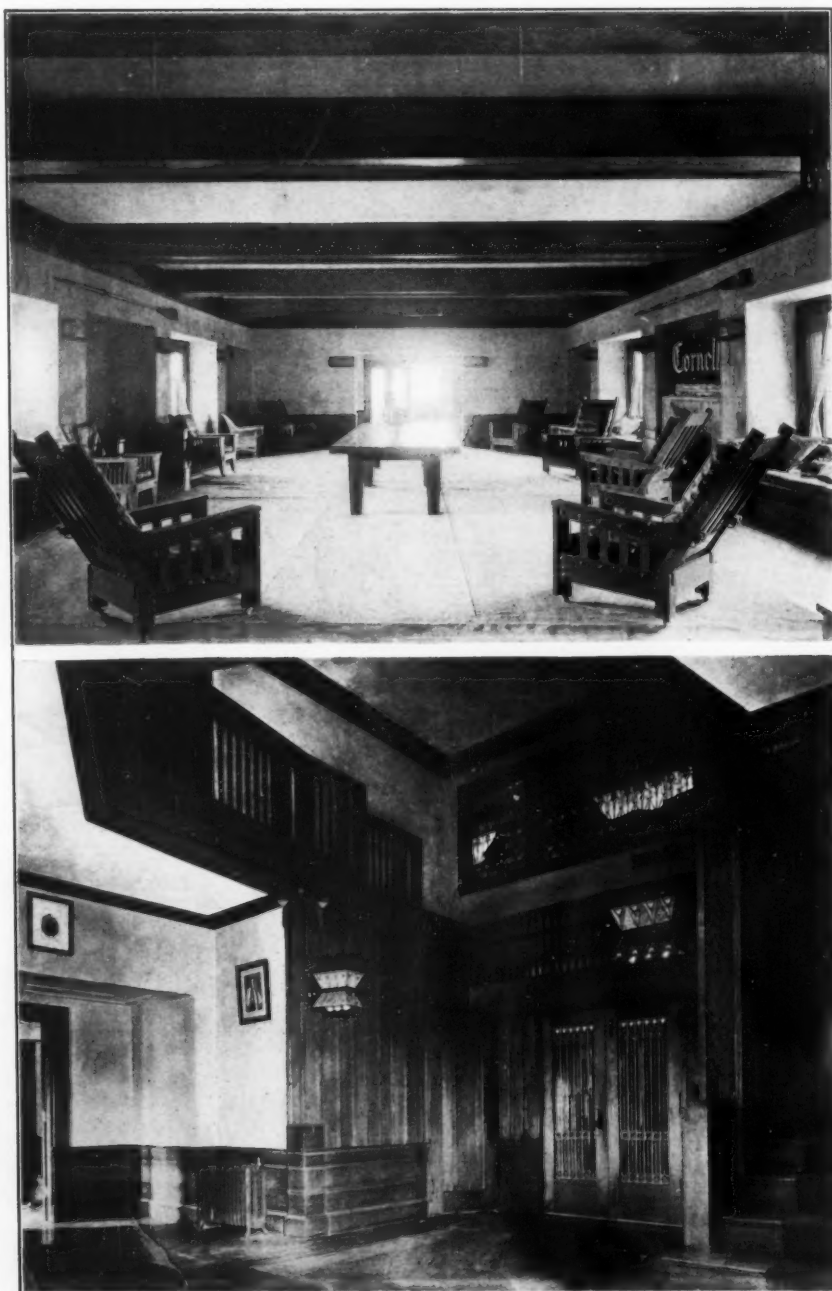


FIRST FLOOR



GROUND FLOOR

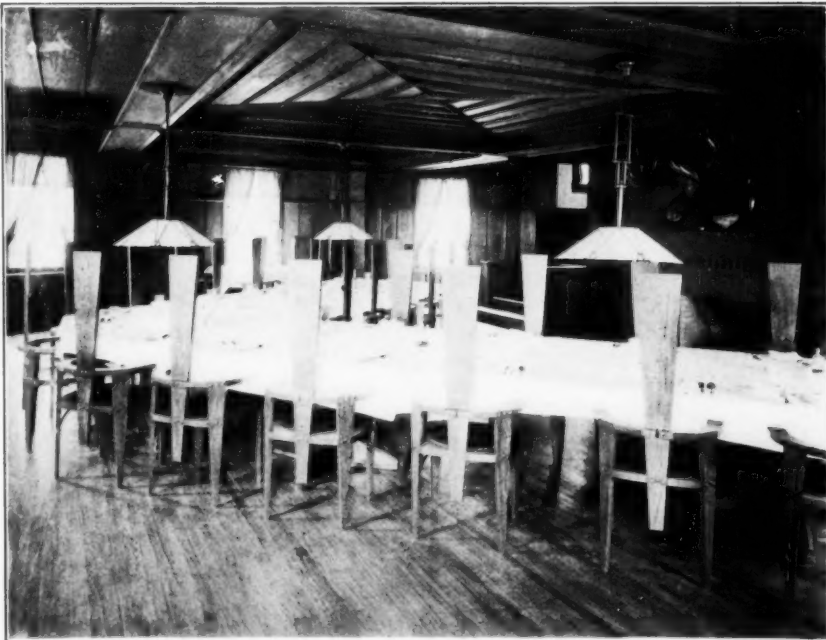
ALPHA DELTA PHI HOUSE  
AT CORNELL UNIVERSITY, ITHACA.  
GEORGE R. DEAN ARCHITECT  
218 LA SALLE STREET CHICAGO



HALL AND LOUNGING ROOM.

The Cornell Chapter-House of the Alpha Delta Phi Fraternity.  
Ithaca, N. Y.

Dean & Dean, Architects.



LIBRARY AND DINING ROOM.

The Cornell Chapter-House of the Alpha Delta Phi Fraternity.

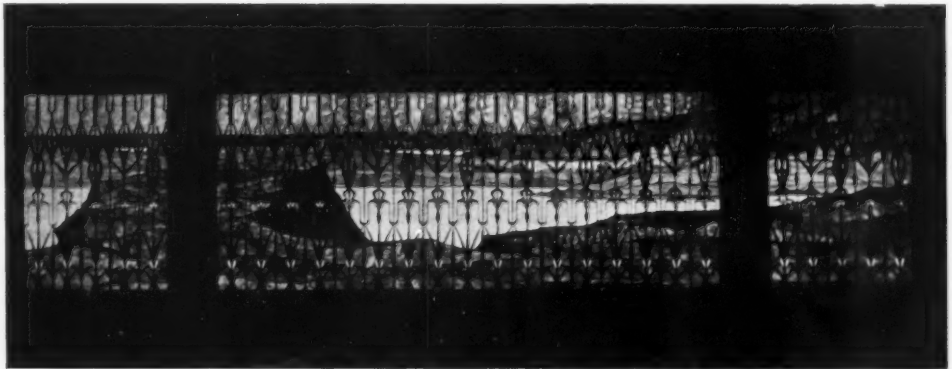
Ithaca, N. Y.

Dean & Dean, Architects.

tions; and salient mouldings frame the windows on the long walls and provide a cap for the upper line of brick-work. Above there is a plain story in plaster, surmounted by a grey-green roof with sufficient overhang to throw a heavy shadow. All applied ornament is rigidly eschewed and the whole design is thoroughly rational. The effect of the building is a little austere; but as we have intimated, that is as it should be.

The interiors preserve the character of the exterior. They are simply and logically designed, and consistently and comfortably furnished. Certain peculiarities of the furniture are to be explained by the peculiar function of the building. The form of the dining-room table, for instance, allows one side for each of the four classes, and a side for the head senior. The high-backed chairs in this room permit easy serving,

while all the chairs are designed to stand the wear the furniture of a college chapter-house sometimes receives. The walls are either paneled or have been allowed to remain flat and plain. There are no wall papers and no hangings, except simple little window curtains. In the lounging-rooms the depth of the wall provides a sufficiency of those window-seats which students at college seem particularly to like. The whole aspect of the place is solid, substantial, simple and comfortable, while at the same time it also bears the marks of thorough and intelligent design. One cannot help feeling that, when a student can obtain surroundings such as these for the hours he spends in eating and lounging, he is much more likely to carry with him into after life an instinct for æsthetic simplicity and integrity.



STAINED GLASS WINDOW IN THE HALL.

Cornell Chapter-House of the Alpha Delta Phi.

Dean & Dean, Architects.



## Some California Bungalows.

The word "bungalow" implies a different kind of building in different parts of the United States. In the east and middle west it means a country house of ample dimensions; but, perhaps, of somewhat inferior or unfinished construction, which is used only for a few summer

securing the essentials of space and comfort. Of course there are many thoroughly finished houses which are for one reason or another called "bungalows," just as there are "camps" in the Adirondacks, whose owners, in their enjoyment of nature, have the assistance



BUNGALOW AT PASADENA, CAL.

months. It is generally a low building with one spacious room, in which the owner both lives and eats, a kitchen and two or three bedrooms. The whole place is supposed to have an air about it of informal charm; and its owners are supposed to dispense with the embroideries of domestic life for the sake of

of a butler and a dinner of five courses; but the bungalow in the east, if it means anything distinctive, means the sort of house roughly outlined above.

In California, however, the "bungalow" means something different. Middle and Southern California have the advantage of being regions in which its



BUNGALOW AT ALTADENA, CAL.



DINING ROOM AND LIVING ROOM OF A BUNGALOW AT PASADENA, CAL.

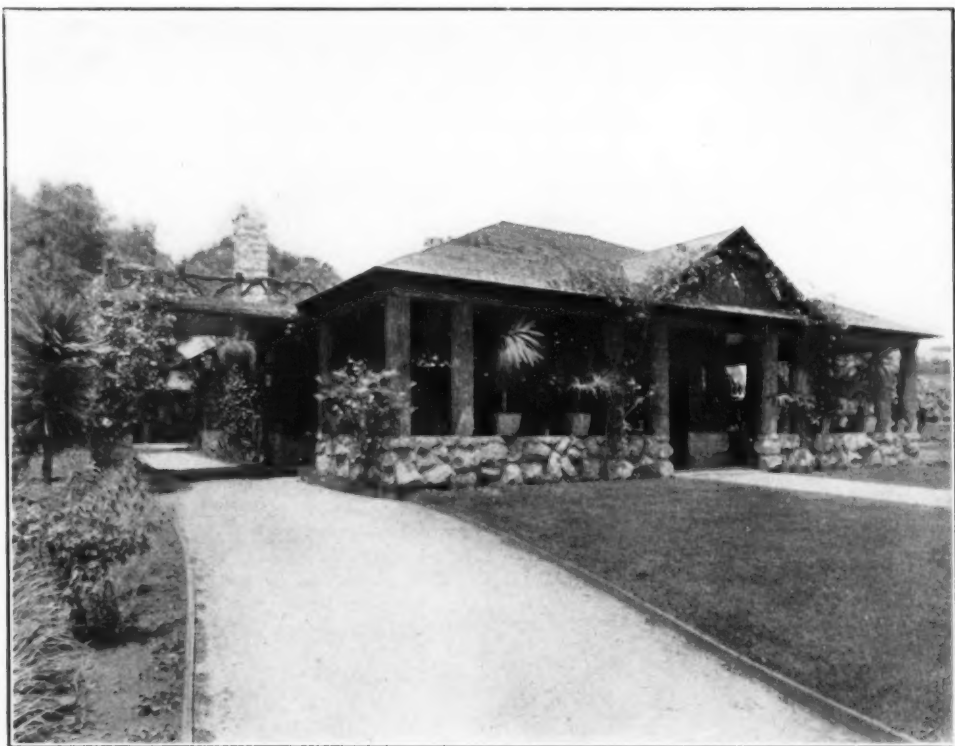


TWO BUNGALOWS AT PASADENA, CAL.



TWO SUBURBAN BUNGALOWS IN CALIFORNIA.





A LOG-CABIN BUNGALOW IN CALIFORNIA.

inhabitants can live out of doors throughout the greater part of the year; and consequently in such a climate a house of comparatively cheap construction, but with a spacious interior, can be occupied in winter as well as in summer. Thus the bungalow is becoming a commoner type of residence in California than it is in the east. It is built for permanent occupation by people for whom the name has the same sort of charm as the word "Mesopotamia" had to a lady in Maine; and being permanently occupied it naturally assumes somewhat different characteristics. It becomes a more complicated and more carefully finished product, with a dining-room, with plastered and sometimes even paneled walls. Instead of being perched upon a hill-top and surrounded by rocks and grass, it is situated upon a street and is surrounded by suburban villas. In all essentials it is

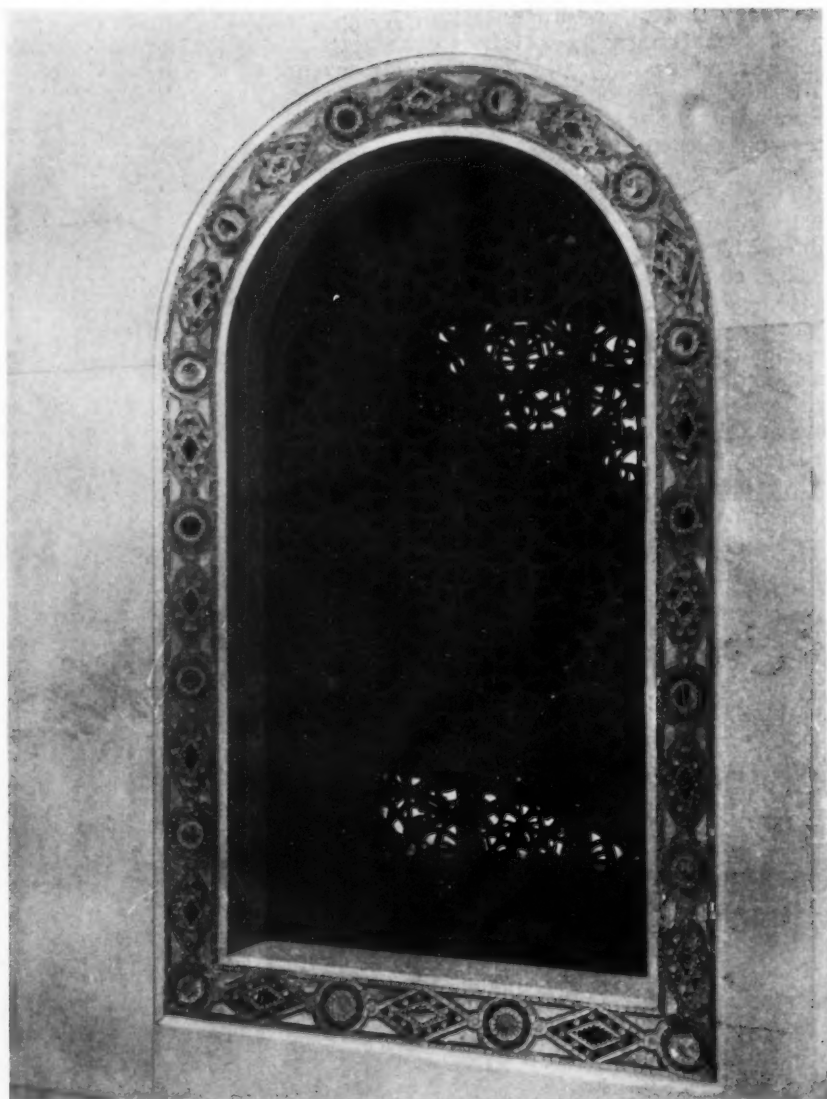
frequently a suburban villa, but it is a villa of one particular kind. It is a low house, generally with a spacious interior, and designed with certain architectural effects in mind. In fact, it is after a fashion an architectural type; and it is one which has its special fitness for people of some taste living in a country like California, where economic conditions favor inexpensive and fragile construction.

The reader can verify these observations for himself by the illustrations which are reproduced herewith. These are all houses which are described by their owners as bungalows. They are all built at a small expense from plans which have been specially prepared; and they are all with greater or smaller success trying to be "artistic." Only one of them looks as if it were situated in the open country, and that is the house at Altadena. This is probably the most

expensive building of the group, because it is the most spacious and is surrounded by a garden. Its living-room is large and is in appearance extremely comfortable; but its size does not count as much as it should, because it is filled with too many things. With one exception all these houses are designed with a proper conception of the kind of effect which should be sought in such low, simple, unpretentious buildings. They set snug and close to the ground, with overhanging eaves, and great surfaces of roof. They are only one story high, or at most one story and attic, and are stained dark on account of the dazzling brilliancy of the California sunlight. The porches are designed to be well-shaded. Rough stones are used for the chimneys and visible foundations much more often than brick, doubtless because they are more available. The only house which displays any ob-

vious impropriety is the log cabin bungalow. There is no objection at all to building a log cabin and calling it a bungalow. Indeed the log cabin is the primitive bungalow, or shall we say that the bungalow is the "up-to-date" log cabin. But the "log-cabin" style is not adapted to porticos and pediments. The classic forms are tolerably flexible; but they cannot be "rusticated" without becoming absurd. On the other hand, if we were asked to express a preference for the design of anyone of these houses, our choice would fall on one at Pasadena with a porch running along the whole length of the building, the roof of which is an extension of the roof of the building. This is a simple design, which is picturesque without unnecessary irregularities. It suggests the white New England farm-house—the best type of cheap and unpretentious frame house ever erected in this country.





WINDOW GRILLE IN THE CHICAGO PUBLIC LIBRARY.  
(Executed by Chicago Ornamental Iron Works.)

## The American Pantry.

In planning our modern houses, much time is devoted to careful adjustment of the proportion of rooms in order to reduce the amount of service required. All details are studied with care to attain the utmost convenience of arrangement. The busy mistress of a household can find countless devices intended to simplify the problem of domestic service. We do not realize how much has been done to lift the heaviest burdens from the housekeeper's shoulders until we compare our arrangements for service with those common in English houses, where the kitchen is far removed from the dining-room, at the end of a long, badly-lighted hallway through which food and dishes must be carried. In England many servants are required, but labor is cheap; it is easy to obtain well-trained willing maids and men. Here, however, conditions are different; servants, difficult to obtain in the first instance, rarely remain in one place very long. Life is simpler if few are employed. In every well-run household, more or less entertaining must be done, the mistress prides herself on a perfectly served dinner. To the guest who enjoys the meal, it seems a very simple thing to plan; the housekeeper alone knows the thousands of infinitesimal details that go to make or mar its success. She knows the difficulty of preparing complicated dishes, of serving them promptly at the proper minute in the dinner, at the exact degree of temperature required; of keeping them at that degree in case there is delay in beginning or serving the dinner. She may be fortunate enough to have a regular chef, but in any case the hidden machinery must run like clockwork. After final orders are given and the meal is in progress, the lady of the house must appear to be entirely free from anxiety as to the result. No won-

der, then, that she welcomes the most "up-to-date," labor-saving devices. Her kitchen is marvelously compact. Brilliantly lighted by the cleanly convenient little electric bulbs, it is radiant from the spotless white of the wainscot tiles and the porcelain sinks, to the burnished copper utensils and plumbing fixtures. It is our intention here to describe, not the kitchen, but that very important little link between it and the dining-room—the pantry.

In the beginning, the word "pantry" was applied to the room where the bread was kept, the name being derived from the word "pain," French for bread. Before people became accustomed to the great variety of food used in modern times, bread was the most important article of diet, the mistress of the household being honored by the title "lady" (loaf giver) because she gave out the supply from her store room. We fail to realize, in these days of cold storage and quick transportation, what life must have been sometimes in those long cold winter days, with no fruit except a few apples, with no green vegetables; if far inland, no fish, with few of the things we consider necessities. Nowadays, in a large city, one can obtain almost any article of diet in prime condition, in season or out. In the country, storerooms are planned for unlimited supplies of canned or dried foods, to fall back on in emergencies. In England, the room or closet where these stores are kept is generally called the "pantry," the word being also used there for the place where the knives are cleaned. English people often have a special boy to clean the knives. This puzzles an American, accustomed in this country to the general use of plated knives, and to the easy process of polishing steel blades with one of our

patent powders or by a simple buffing wheel, worked by foot power.

In the most approved system of serving, where very large dinners are to be taken into consideration, the kitchen and dining-room are situated on the same floor, but lack of space, especially in the city house, often prevents this. The kitchen must be in the basement, or more infrequently, on the top of the house, connected by a dumbwaiter with the pantry. Before the architect's drawings are finished a careful study should be made of the requirements, a list being made of things to be included so that nothing can be forgotten. In every household this list will vary. One housekeeper keeps her tablecloths in her linen room and the greater part of her china in a separate closet; she insists that the light from the window shall fall from the right-hand side on the sink where her maid is to wash dishes; the window must be high, so that people cannot look in. Whereas, her next-door neighbor will wish all these conditions reversed and order the window low down so that her servants in working can watch the entrance and be ready to answer the door bell. All these items are petty, the discussion of them tedious to the last degree, but they add immeasurably to the comfort of a family, if considered in the beginning and intelligently carried into execution.

#### COUNTER-SHELF.

The first thing to provide in a pantry is a place to deposit the dishes, on their way to or from the dining-room. A wide shelf of wood running around the room gives ample space for this. Sometimes, drop shelves are hinged to the edge, to give more space if necessary.

#### SINKS.

The next thing is to have a place for washing the dishes; the most convenient way is to have a sink (or several sinks) let into this wide shelf, which is grooved and sloped near the sinks so that all moisture runs back into the sink. The model housekeeper never

allows her dishes to drain as is the common practice. She removes every particle of food into a proper receptacle, then dips each piece of glass, silver or china separately, first into a wooden (or metal) tub full of boiling hot soapsuds, rubbing lightly with a white mop, then into another tub of equally hot, clean water and dries it without delay on a fresh linen towel, changing the towel when it becomes damp. This may be done with the utmost rapidity, and the dishes set at once in their proper positions on the shelves. The intense heat drying off all moisture, the surface shines with cleanliness. This follows the pretty old-fashioned custom of our capable great grandmothers, who attended well to the ways of their household; china teacups were too precious in those days to be entrusted to clumsy fingers and danger of chipping.

#### DRESSERS.

China and glass are kept on shelves in dressers above the counter-shelf, large platters being arranged on edge, back of the piles of plates. Distance between shelves varies according to the size of the dishes; small shelves are set in between the large ones, for tumblers, and for the various small dishes; cups hang on small brass hooks screwed up into the under side of the shelves. Places are carefully arranged for all kinds of dishes, teapots, pitchers, etc., an arrangement of this kind encouraging order and neatness, as it is easy to put things at once where they belong.

Sliding glass doors, running smoothly with ball bearings on brass tracks, are provided to shut the dishes away from dust.

#### RACKS FOR TRAYS.

Close under the lowest shelf of the dresser nearest the dining-room door is a wire rack into which the silver trays for handling the dishes are slipped when not in use.

#### CUPBOARDS.

Under the countershelf cupboards are provided with shelves and paneled



doors. In these are kept the glass towels, chamois skins, brushes, cloths, sili-con, soap, ammonia, polishes, extra mops, etc.

#### PLATE WARMER.

One division under the counter-shelf is devoted to the plate warmer, heated by steam, gas, or hot water, where plates and sometimes the dishes are kept at proper temperature till their term of service comes.

#### REFRIGERATOR.

Under the counter-shelf also, a small refrigerator is built in. When salads or desserts are prepared in the pantry, they are left here with the waitress' store of cream and wine, which are under her care, not under that of the cook.

#### DRAWERS.

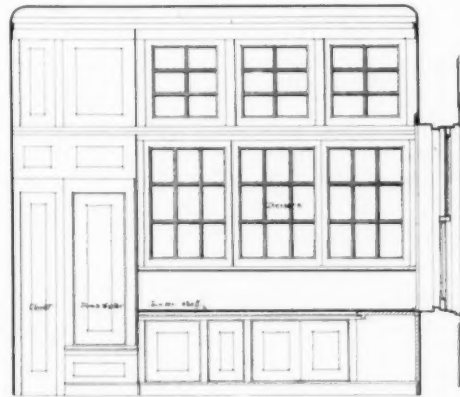
Drawers are planned of sizes varying according to the sizes of things they are to contain. Silver is generally kept on or in the sideboard in the dining-room; sometimes the linen also is kept there. If not, small drawers are here provided, divided into compartments, and lined with felt, for all sizes of knives, forks, and spoons. One very long drawer is necessary for tablecloths which are rolled on a roller at the laundry, to be laid without a crease on the dinner table. Napkins, serviettes, tea-cloths, table centres, etc., each have their places. As a rule, only the linen in daily use is kept here. One drawer is devoted to corkscrews, graters, can-openers, and various small tools and "Yankee notions."

In planning a pantry the fittings should be carefully laid out on a scale drawing, and approved by the owner, before the final drawings are made at full size. In detailing, few dust-catching mouldings or other projections should be introduced, simplicity being of the first importance in a serving room.

Three pantries are described here, with a view to giving as many useful hints as possible:

The first is the kind of pantry needed

in the majority of our houses. In contrast to this we recall one (since thoroughly remodeled) which existed until two years ago in a very handsome house on Fifth Avenue. Built at a time when heavy black walnut was in fashion, it displayed the most massive and exaggerated rolls and mouldings around the doors, the tops of which being semicircular, added to the general confusion. The place was long and narrow, made narrower by an inconvenient back stairs which went up from the pantry—not down, you had to go out in the hall to get to the kitchen below. It was full of doors, but there was no window, no



First Pantry Elevation Towards Dumbwaiter.

outside ventilation—that had been cut off by a wing added to the rear of the house. The cupboards, plumbing, etc., were as inconvenient as could well be imagined. The best china had to be transported on the dumbwaiter to the fourth floor every time it was used. The owner rather objected to the improvements proposed as it "seemed a shame to paint or remove handsome walnut woodwork like that!"

#### FIRST PANTRY.

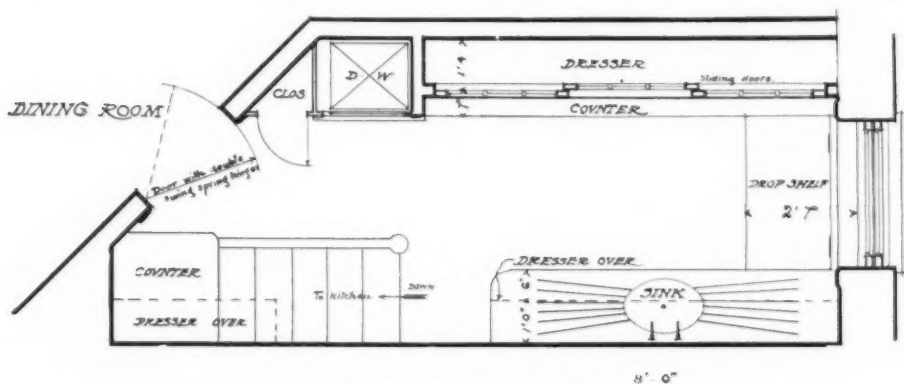
The first, a room seven feet wide by twelve long, in a large old-fashioned house, has been remodeled from one somewhat resembling that described above. It now rivals the most modern in convenience. All the old woodwork, the clumsy black walnut, the

heavy ugly old shelving, with swinging glass doors, and turned baluster supports, the stuffy boxed-in plumbing were torn out and ruthlessly cast away. Then the ceiling was planed off, the elaborate plaster cornice removed and replaced by a simple cove at junction of wall and ceiling. A perfectly plain trim five inches wide with edges rounded off finished the window and door openings. All of the new woodwork was carried out in well-seasoned pine, painted and enameled white, carefully rubbed after each coat to give an effect of ivory smoothness.

The heights of the openings and the spaces left on the walls were carefully measured. It was necessary to have

having been provided for these very necessary articles. Shallow shelves hold bottles and boxes for cleaning things, also a tool box divided into tiny compartments, containing a supply of tacks and nails, a few screws, screw-eyes, etc., a tack hammer, screw-driver, patent awl, etc., ready for use in any emergency. This closet is very small, merely an annex to the housemaid's closet on the second floor where the main supplies are kept in quantity.

The pantry sink and counter-shelf were set an inch and a half higher than is usual, in order that the maid might work without stooping over. The sink was placed at the right side of the window, as it is always best in working to



THE FIRST PANTRY PLAN.

stairs leading down to the kitchen from the pantry as before, but they were rearranged, without dangerous winders, and made fairly easy. They take up an inconvenient amount of room, although part has been utilized by a shelf over (which answers for a serving table) and by a dresser over that again for rarely used china.

The clumsy noisy old dumbwaiter was replaced by a compact little one of modern design, weighted so that a touch sets it in motion, not a sound betraying the fact of its operation. In the waste space between the dumb-waiter and the dining-room door, a small triangle was partitioned off for a closet large enough to hold a broom, brushes, dusters, etc., no accommodation on the parlor floor

have the light come from the left side. The sink is of tinned copper with oval bottom, with plug and chain. In this dishes can be safely washed without fear of breakage. It was set in a wide heavy hardwood drip shelf grooved and graded so that all drip water would drain back. The wall under and back of the sink was finished in white tiles. All exposed piping and the high pantry faucets were nickel plated. The hot water cock was threaded for the attachment of a short rubber hose with a spray at the end for rinsing dishes. Over the sink were folding rods, also nickel plated, for towels. Shallow shelves in the small cupboard at the side held the necessary cleaning cloths, bottles, etc.

On the opposite side of the room, a

small refrigerator was fitted in under the counter-shelf, a simple boxlike affair, made by the plumber, of tinned copper, with a narrow compartment at the side, which can be removed to the kitchen and filled with ice.

The plate warmer, a metal box with slat shelves over a reservoir filled with hot water was kept at even temperature by a gas jet. Both plate warmer and refrigerator were protected by a thick covering of asbestos, and an additional airtight covering of metal.

Ample space over the counter-shelf

Two inches below the widest dresser a light rack was fastened to hold trays. This was made of light strips of metal, nickel plated.

In one dresser the shelves were made movable, like book shelves, so that they could be raised or lowered at will.

The sliding sash extended up as far as the shelves could be conveniently reached from the floor. Above this, the space was filled by small cupboards closed in by doors, where the reserve stock of china was stored out of the way. In the corner, under the counter,



THE FIRST PANTRY.

Elevation towards the Stairway.

was left for the placing of high dishes, pitchers, etc. No supports under the dresser were allowed to interfere with this space.

The width of the dressers above was carefully calculated, and comfortable quarters provided for every platter and dish. Some shelves were only ten inches wide, others over fourteen. This, with the necessary allowance for the width of the sash sliding past each other in the two tracks in front of the dresser, made the total width fifteen and eighteen inches.

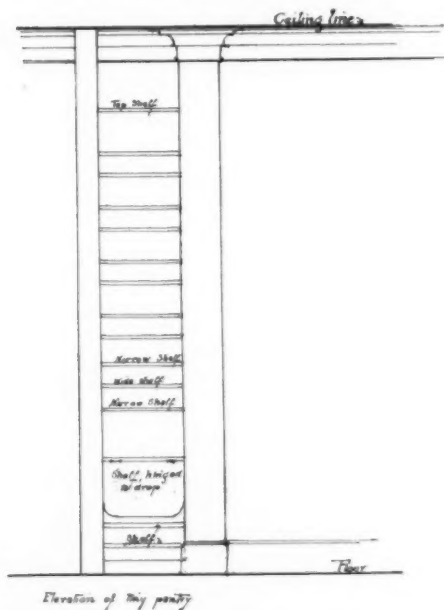
a strong little set of folding steps was tucked away ready for use whenever it was necessary to get at the high cupboards.

A drop shelf was hinged in front of the window. The window itself was screened by full white sash curtains and holland shades. Extra sets of curtains were provided so that a fresh set could be shirred on each week.

Cork flooring in small block pattern, proved very satisfactory, being soft under foot, noiseless, and easy to keep clean.

## SECOND PANTRY.

In marked contrast to this is a tiny pantry, built into a nook in a studio by an ingenious but impecunious art student, whose entire suite consisted of the studio with a small bedroom and bath adjoining. Her needs forced



her to contrive some convenient way of concealing the corner where her cups and plates were stowed away after her coffee was made in the morning. Her regular meals were taken in a neighboring French restaurant, but the early coffee and five o'clock tea or late supper were comforts to be had at home. Her accommodations were limited, no space in her studio could be conveniently spared, but after much thought a niche two feet wide and six inches deep between two piers, was screened by a heavy cotton curtain exactly matching the green wall covering in tone. Her store of cups and plates were arranged on shelves, spaced at unequal distances to the ceiling. A small bread board two feet square was hinged to one of the shelves, forming a drop shelf or table. The bright copper tea kettle and blue and white enameled saucepans were

hung up under this drop shelf. Her quaint assortment of gayly flowered crockery, gathered in student days abroad, forms an inviting picture, and simple meals, prepared over her little gas stove, have a homelike flavor lacking in the more elaborate ones eaten in the restaurant.

## THIRD PANTRY.

A third pantry is an adjunct to the house of a woman of large means.

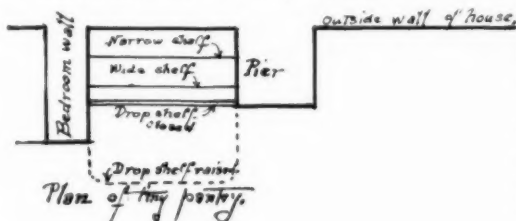
The kitchen itself is in its way perfection. The walls and floors are tiled, the ceiling of hard plaster; if necessary the hose may be turned on in cleaning the room. The electric and coal ranges are of latest model—but all that, as Kipling would say, "is another story." This space is reserved for the description of the large pantries which connect it to the dining-room. From the pantry or serving room adjoining the kitchen start two electric dumbwaiters and a staircase, which end in the pantry above, a large well-lighted room, fitted up without regard to expense, to suit the owner's tastes. The idea in the beginning came to her while examining some Roman ruins. The beauty of the arrangements for the baths, the costly simplicity of the marble and terra cotta which encrusted walls and seats, even the rather crude but effective means of providing hot and cold water, appealed to her strongly. She resolved that on her return to her native land, she would reproduce the general effect in a room in her own home.

The first thing that struck her was the perfect adaptation of the material to the service required of it, next the beauty of the workmanship. She resolved that with all the resource of modern times at her disposal, she could certainly turn out something that, while absolutely filling every need, would also please the eye by the fineness of material employed.

The room, twelve feet wide by twenty four long, with a domed ceiling, is abundantly lighted by a large window at one end. The floor, of marble, in grey and pink, is connected with the tiles on

the walls by a coved moulding. Glass doors flush with the walls protect the shelves behind them, the shelves themselves being of heavy plate glass on nickel plated supports.

A refrigerator, cooled, as is the cold room off the kitchen, by currents of brine from the refrigerating plant in the basement, lined with porcelain tiles and



spotless within and without, holds such desserts and supplies as come directly under the butler's eye.

A closet, heated by electricity, keeps plates and dishes warm. Next to it is another, a hot closet, where everything may be kept at a higher degree. Electricity, here as elsewhere in the house, retains the temperature at any given point.

A large cupboard holds stores of linen, towels, and fine and coarse cloths for every use. A small chute near the sink, leading to the laundry below quickly disposes of soiled linen.

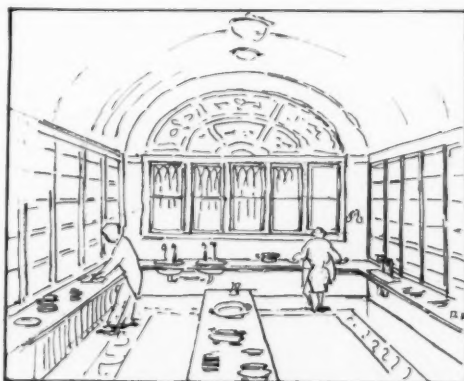
Two electric lifts from the kitchen, convey the food from the kitchen. A system of springs and liquid checks keep

the car from jars even when run at top speed. A tube at the side of each communicates with the pantry below, from which the food is sent. No one at the dinner table can possibly overhear remarks made by the butler and his satellites to the chef or his force in the kitchen. A telephone here connects with all the important rooms in the house. In the butler's own room, which adjoins this pantry, is the long distance telephone over which his orders to tradespeople are given when necessary.

Built in the wall at the rear is a large well-lighted silver room. Burglars feel discouraged when they consider the many clever contrivances for rendering its valuable contents absolutely secure. The thick iron door, swinging heavily on its hinges, concealed in the paneling when closed, is the only sign of the safeguards employed. Inside rows of wide shallow drawers, white like the rest of this immaculate place, hold dozens of forks, spoons, etc., arranged with exquisite regularity on soft white mats. Heavy pieces of plate, removed at night from the sideboard, are placed each in its own particular niche in this great safe.

The wide counter-shelf and the table running down the centre of the room are of marble, the three sinks of porcelain. No woodwork shows anywhere, even the dressers being fitted up with plate glass doors set in narrow nickel-plated frames.

*Katherine C. Budd.*



Perspective Sketch of the Third Butler's Pantry.





THE BARCLAY BUILDING.

Broadway, New York City.

Stockton Colt, Architect.

# NOTES & COMMENTS

## **SPIER'S ARCHI- TECTURE EAST AND WEST**

Mr. R. Phené Spiers received much honor, last February, when there was a special gathering, in London, of architects and students desirous to acknowledge the important work that he has done for them. This meeting was followed by a complimentary dinner and was accompanied by the presentation of these special memorials—a bronze medallion portrait by Edward Lanteri, of which smaller copies were distributed, a collection of architectural books, and a volume of Mr. Spiers' essays specially gathered for the occasion, published by B. T. Batsford, and bearing date 1905. The volume in question has reached New York and contains three preliminary pages about the testimonial, and then the frontispiece—a photograph of Lanteri's bas-relief, and, facing that the title-page of the volume itself. This volume is of 269 pages; it consists of nine essays, all illustrated, the pictures being sometimes full-page half-tones, sometimes half-tones printed in the text, and still more often cuts of the nature of diagrams—explanatory plans and the like—pictures for reference and not for decoration.

The papers are not always new. The very valuable and complete one on "Mahometan architecture," 45 pages long, was read before the Architectural Association in 1888; that on Saint Front of Périgueux and its kindred churches before a general meeting of the R. I. B. A. in 1896. A curious study of the influence of Greek art on that of Persia was printed in "The Builder" in 1904. But the reader may be assured that the papers, old and new, long and short, are of extreme interest, and that the volume will repay careful reading, even to the taking of one essay at a time, and that followed up by reference to the authorities cited. For frequent reference, after the volume has been set up on its permanent shelf, the index of nine pages, which refers to notes as well as to the body of the text, suffices—making the book into a handy encyclopedia concerning what is known of Persian, Byzantine, Levantine and early French round-arched building.

Mr. Spiers is a practiced draughtsman, and a water-color artist whose work can be trusted for its accurate presentation, and therefore those photographs which are taken from his drawings are of unique value. One of these shows an interior of the great mosque at Damascus as it was in 1866, long before the ruinous fire, and the results of that conflagration are shown in photographs from the building itself; and those photographs also are generally inaccessible, for they do not seem to be in the market at all. So there is a picture of certain details in the Byzantine church at Murano in the Venetian lagoon, made from a very delicate drawing which, however, is not signed, and another of details from the palace at Rabbath Ammon. There are others nearly as remarkable, such as Fig. 86, an elevation of a part of the ancient palace at Diarbekr.

R. S.

## **SOME NEW YORK COMMERCIAL BUILDINGS**

Some of the warehouses and factories which are brought to notice are indeed so interesting that they offer a vague hope of a new architecture based upon construction and plan, upon purpose and logical significance. It will not surprise even the designers of the pseudo-Roman Colonnades to hear it urged once more that such designing as that is our main hope to have an architecture at all. It is not an architecture, the building of more neo-Roman colonnades, no matter how carefully the proportions are studied from the best models of old time.

Our photograph, Fig. 1, shows in the middle distance a building which has been given before in these columns, the Oxley-Enos Building on Seventh avenue, at the corner of West Sixteenth street, in New York City. When that photograph was made (see the Record for February, 1904: Vol. XV., p. 127) there was a row of old-fashioned three-story fronts adjoining it on Seventh avenue, as indeed there was on the street. Since that time the large building at the corner of West Fifteenth street has taken shape and this,



FIG. 1.—THE OXLEY-ENOS AND THE STREET & SMITH BUILDINGS.

Henry F. Kilburn, Architect of the Street & Smith Building.

7th Ave., from 15th to 16th Sts., New York City.

which we shall call the Street & Smith Building, fills up the whole block on Seventh avenue from the property line of the Oxley-Enos Building. It is a good deal larger and somewhat more pretentious, and without being so exceptionally happy in design as one or two buildings named in the earlier chapters of this discussion, it has great merit. Suppose that such buildings as this were to be built on Fifth avenue, between Thirty-fourth and Fifty-fourth streets, to-day! The first feeling, even of believers in the realistic and the logical in architecture, would be that this plain brick front, without attempted mouldings and sculpture and traditional layout, was really a little out of place; but would not the second feeling be that a slight modification of that system of design would result in the true street building of the future? Suppose that the same spirit which influenced the Judge Building (for which see the Record for January, 1904, Vol. XV., p. 11) were to inspire the designer of the next big strenuous business building! Suppose that some such refinements of massing and moulding were attempted! Suppose, as we may, more readily indeed, that moulded bricks were ordered from carefully drawn profiles, giving five or six different possible groups of mouldings about the larger and the smaller windows and doors, and that the cornices were considered also in the light of such modification as these bricks would allow. In other words, let us assume that the architect to whose lot it shall fall to build a rather lofty business building on Fifth avenue next fall, not a steel-framed skyscraper, should decide to be as modern in his methods of proceeding in design as in construction. He would naturally look about for methods of decorative treatment, and in addition to the mouldings so easy to procure he might ask for a bit of cast brick or terra-cotta, giving slightly more elaborate decoration than those mouldings—anthemions, or ball-flowers, coves with leafage laid in them, or bits with leafage to envelop them—for, indeed, there is nothing non-modern, nothing unworthy of a realistic design, nothing illogical, in the addition of carved or cast ornament of any richness which the owner's purse may allow. It is the old-fashioned, the traditional, the accepted architectural ordonnance, the fenestration of the palazzo and the "five-orders," that the practical requirements of to-day forbid absolutely.

The Street & Smith Building we take to be 125 feet wide on the avenue, with a white stone porch of entrance at the extreme left, and a great need of something to echo or re-

peat the note of that porch at the other end of the front. For observe the two great piers which in so very fortunate a way bound and limit the avenue front on the left and on the right. That use of corner piers is a feature which there has been occasion to comment upon before, in the De Vinne Building, in the Judge Building, in the Tarrant Building, in the more simple buildings on West Twenty-sixth street; and the possibility of piercing so great a pier as this with windows of normal and useful size, makes that architectural feature natural and easy to introduce. In the case before us there is, indeed, a suspicion that the corner pier is a little too much broken up by these windows; that windows here might have been made with sills higher above the floor or divided differently with three small, narrow lights instead of two larger ones, or in some such way differentiated from the rest of the front even more than they now are. That is a counsel of perfection. The presence of the piers is a most fortunate thing, and again let it be said that the one on the right seems to need a detail at the base which would seem to repeat in a way the pale, smooth mass of the porch. Apart from that, how good and satisfactory is the building! It is one more instance of the widely spread, and on the whole, fortunate tendency to use the plain, hard, square-edged bricks of commerce in slight relief and slight depression, getting thereby effects of color without the use of colored material. For indeed the shade line and the shadow line on a red brick wall have color of much interest, and that would be more plainly seen were there not the greater contrast of the white stone lintels and sills. It is hardly worth while to dwell upon the details of the design because the principle underlying it all is sufficiently obvious. The only desideratum which it suggests is that of a system of wall-cornices for these buildings which have no neo-classic pretensions at all. The brick cornices of Mr. Hunt's buildings named above are just so far irrational that they suggest too much the mediæval fortifications, the machicolation which accompanies and supports the battlements of many a fortress of feudal days. Cornices like the one shown in Fig. 1 suggest again the classical entablature of the architectural school. To offer prizes in the Architectural League or elsewhere for designs for wall-cornices would be a good move. "Required, designs for the topping out of high walls of city buildings in cases where no roof is to be visible above the walls, and where nothing but a gutter, if even that, is to be masked by the uppermost courses of masonry. Required, two forms of the de-



FIG. 2.—THE STREET &amp; SMITH BUILDING.

7th Ave. and 15th St., New York City.

Henry F. Kilburn, Architect.



sign; the one with a pierced parapet of some form—whether with a continuous straight horizontal line to bind it, or the broken line suggesting and suggested by battlements—but in any case something that will break the sky into the wall and the wall into the sky: the other without such accessory, but with all its effect procured by the light and shade and shadow below the gutter-member, the cyma recta or crowning moulding of different form." That is a programme which one would like to see laid before the architectural students; or, failing that, the pro-

petition among youthful designers. The exterior fire-escape so properly called for by our laws—let that be treated as an architectural feature. There is, or was, in a street on the east side of town and below East Fourteenth street, an instance of the fire-escape treated as a staircase in a well surrounded by masonry walls, and wholly open to the street, although enclosed within the building line. Even if that stair should exist no longer, the architectural designer might see his way to recreate the thing in his mind; and really it ought to pass into



FIG. 3.—STABLES FOR ARNOLD, CONSTABLE & CO.

7th Ave. and 16th St., New York City.

gramme which any designer may set to himself or to his assistants. There are and there have been the excellent pierced parapets of the Hanan Building in Center street, the Judge Building in Fifth avenue, as it was before the recent alterations (for of each of these there has been discussion in the Record), and of larger buildings which as yet have not received their meed of critical notice.

Fig. 2 shows the Street & Smith Building more completely, giving the front on West Fifteenth street and the elaborate system of iron ladders which makes up the fire-escape. There seems to be a chance for another com-

permanent shape as one of the features of New York City architecture. There is an example at the southwest corner of Lexington avenue and 34th street, and in this a very different scheme is adopted. Modifications of that system also would be interesting to study out.

And now, as this block on the lower west side is interesting, as we have seen, so is the block opposite interesting in a way by the presence there of another new building, simple and without startling features, and yet worthy of mention as a bit of sensible street-front designing. Fig. 3 shows the stables of Arnold, Constable & Co., and it is good to

see reminiscences of the Italian palazzi, of the big street fronts of Ferrara and Bologna, struggling with the disposition to build a very simple brick building. The casings of the windows in the architectural basement—both the square ones and the oculi above them, are terra-cotta castings with some little pretension in the way of adornments added to the run of continuous mouldings, but the casings of the great doorways are not so elaborate and the window-heads of the windows in the wall above are as simple as possible, easy to build of brick as flat arches, although in this case they are cast in one block as a terra-cotta lintel. And this simple building gives one a chance to notice and to say how very different the familiar old business of rustication is when treated in brickwork. One gets to abhor rustication when it consists in dressing the faces of handsome blocks of stone with little splays or rebates around their edges; but when every seventh course of brickwork is recessed three-quarters of an inch or so in order to draw a line of shade on the front, how sensible that seems and how pretty is the effect! If it were not for the too cumbersome parapet, what a good building would this three-story "horse hotel" afford!

R. S.

#### DEALING WITH ADVERTISEMENTS IN ENGLAND

"Scapa," the English Society for Checking the Abuses of Public Advertising, has recently issued a bulletin containing a résumé of its efforts of last year. These bulletins are always interesting reading, though last year proved more bare of results than is usual. This is because the society's exertions were mainly devoted to a fruitless endeavor to get a bill through Parliament that should assert "the principle that there ought to reside somewhere legal authority to prevent, in specific cases, grossly disfiguring developments of advertising." The legal authority was to be a local authority. It is interesting to note that among the precedents brought forward in support of the bill was the American legislation which gives to park commissioners the power to make reasonable regulations concerning the display of advertisements so near to parks and parkways as to be visible therefrom. Happily the story of the signs on the Bryant Park fence in New York seems not to have crossed the sea to negative the good impression these citations were making! Apart from the failure to enact this attempted legislation, the bulletin remarks that no year

had been more fruitful in evidence that public opinion is alive to the subject. "The principle for which Scapa eleven years ago set itself to secure recognition is now constantly upheld in the leading journals. The Institute of British Architects has lately taken action which has done much good. A no less encouraging symptom is the manifest determination of many landlords and other owners to exclude defacing notices from the sphere under their control." In so far as this subject relates to the plastering of building façades with signs, it is, one may add, of great concern to architects, whose good work is often thus ruined the moment it is completed. The bulletin closed with some very pertinent and suggestive extracts from the proceedings of the House of Commons during a discussion of the changes in the Mall and St. James's Park. John Burns said that when there was a clear road from Buckingham Palace to Charing Cross, the most prominent object would be a certain illuminated advertisement on \* \* \* and he hoped the noble lord would use his influence to have this advertisement removed. Replying, Lord Balcarres (for First Commissioner of Works) said, With regard to the advertisement nuisance, every one who walked down the Mall at night must have noticed that the advertisement to which attention had been called, with its royal monogram and imperial crown, flashed its message to the very windows of the sovereign's palace. The Office of Works had no jurisdiction in the matter. All he could say was that by drawing public attention to it a stimulus would be given to the great movement which was now on foot to give to public authorities the right to regulate this nuisance. Cheers interrupted him at this assertion.

#### BALCONIES FOR A SULLIVAN FACADE?

The continuing and even growing interest in Louis H. Sullivan's treatment of the skyscraper problem needs no comment here. If proofs were required of that interest, it would be found in the constant recurrence of discussions of the work. At a recent club meeting, when the talk turned to his Prudential Life Building in Buffalo, a suggestion—novel as far as the writer knows—was advanced, in all humility, that the structure might have been improved by a use of iron balconies. The speaker, admitting everything that was said in favor of the building, and himself a vigorous admirer of Mr. Sullivan's sincerity, maintained that the lateral view of the building—the view

from the same side of the street, when one looked along the structure's side; or from any point at which the recessed windows and horizontal courses become invisible—was not pleasant. Neither, he thought, was it truthful. And owing to the location of most high buildings, this is the view that unfortunately must be usually had of them. In the case of the Prudential Life, looked at in this way, the eye, he thought, suffered a series of checks or rebuffs as it tried to travel along the façade, pier after pier opposing its progress. Light iron balconies would, he suggested, carry it restfully from one to another. They would be justified by their utilitarian function; their material would fittingly and charmingly suggest the structure of the building; and their essential horizontal lines would indicate the connection that actually exists between the piers; while he thought that if, between the outside iron girder of the balcony floor and the iron-guard rail, there was provided a protective shield of terra cotta, similar to the horizontal courses of the rest of the building, the balcony

would not become obtrusive in the direct view, nor would it unpleasantly jar upon the studied monotony of the façade. From such a point the balcony would then be absorbed in the façade, while seen from the lateral point of view it would offer with welcome visual effect a bridge across the narrow but dark and uncertainly deep chasm between the piers.

In an article headed, "The American Country Estate," in the July number of the "Architectural Record," we devoted some space to the handsome volume recently produced by Mr. Barr Ferree. By an oversight, we did not state that Munn & Co., publishers of "Scientific American," 361 Broadway, New York City, are the publishers of the volume in question, the correct title of which is "American Estates and Gardens." The reader, interested in the finer residences of the United States, will find this book most valuable and interesting. The illustrations are particularly fine and complete.



# "SWEET'S" "The Book of the Catalogue"

A Department Devoted to Items of Interest Regarding  
"Sweet's Indexed Catalogue of Building Construction"

This department of the "Architectural Record" is devoted to keeping the architectural profession, builders, house-owners, and others informed concerning the field of building information covered by "Sweet's Indexed Catalogue of Building Construction." This building material field is quite as important and scarcely, if at all, less interesting than the "art side" of architecture. It is of the utmost importance to architect and owner alike that they should be promptly, reliably, and readily supplied with up-to-date news of building materials and building equipment. The "promiscuous catalogue" does not supply this information. The architect gets too many of these to read and they are so "built" that it is almost impossible to refer to them handily, besides they are all of different sizes and the preservation of them in a cheap, ready, available form has hitherto been an impossible task. Hence "Sweet's Catalogue" and this department, which will keep "Sweet's Catalogue" up-to-date.

The entire architectural profession has condemned the present catalogue method. Architects declare that at least 75% of the money spent upon catalogues is, so far as they are concerned, thrown away. Most catalogues go into the waste-paper basket unread. Nevertheless, the architect needs catalogue information, but he wants it in a shape so that he can refer to any particular item precisely as he refers to a dictionary or encyclopaedia. Think of a dictionary in the shape of three or four thousand loose booklets of every conceivable size, shape and color! Think of referring to it for precise information! "Sweet's Catalogue" will entirely do away with the "catalogue evil." It will place in the architects' specification rooms an encyclopaedia or dictionary of building material. It is THE BOOK of catalogues—all catalogues of the same size, all compiled according to a logical scheme, all arranged in reasonable order, and all prefaced with a scientific cross-index by means of which almost any material or make of material may be turned to in an instant.

Twenty-six hundred architects, besides many thousands outside of the profession, have endorsed this plan in writing. "A brilliant idea," says one architect; "the very thing that is wanted," says another; "the real solution of our catalogue difficulties," says a third; "after this I shall ask building material houses not to send catalogues to me," says a fourth—the story is similar to the end of the twenty-six hundred letters.

"Sweet's Catalogue" is to be in all architects' offices. If you are an architect and have not sent in your name, do so promptly. Remember, a copy of this work, which will cost more than one hundred thousand dollars to produce is sent to you entirely free of charge, provided the publishers are assured that you will keep the work in constant use.

We append a partial list of firms who have taken the first step towards abandoning the present expensive and inadequate method of distributing information to the architectural profession by means of the "promiscuous catalogue." The list is worth studying, as it exhibits some of the most progressive firms in the country. It will be noticed that these are the firms that are doing most of the important work now under way.

Building material firms can now keep the entire architectural profession thoroughly posted for about one-tenth of what it cost previously—by putting their catalogue in "Sweet's," and then using space in the advertising pages of the "Architectural Record" in order to announce each month any novelties or changes in their goods or prices. After this, it is valueless to spend a dollar elsewhere, because "Sweet's" will be the working tool in the specification rooms of the architectural profession, and the "Architectural Record" possesses at least three times the circulation of any other architectural publication. "Sweet's" will be handsomely bound, of the highest typography, and printed on the finest paper. It will be published in the fall.

The "individual catalogue," distributed promiscuously, is about as justifiable as it would be were the men who issued them to insist upon traveling at any hour and upon special trains. It is easy to figure how costly and inefficient this system of locomotion would be. Just as easy to figure the same result with the catalogue. When "Sweet's" arrives at an architect's office, every catalogue that the architect will want arrives at the same mo-

ment. All that is necessary is to put "Sweet's" on the specification table and later, for anything wanted, turn to the Index. Some architects have tried to "do something" with a few of the promiscuous catalogues they have received in the course of a year. It has cost them several hundred dollars per annum to achieve a little order in chaos. "Sweet's" will relieve the architect of this difficulty and expense.

Practically all the principal manufacturers of Building Materials and Equipment have arranged to have a digest of their catalogue included in "Sweet's" Indexed Catalogue.

The following are some of those who will be represented in the work :

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| American Tin & Terne Plate Co.      | Churchill & Spalding               | Galloway, Wm.                           |
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| Automatic Mail Delivery Co.         | Corbin, P. & F.                    | Goodyear Tire & Rubber Co.              |
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| Barber Asphalt Paving Co.           | Creamery Package Mfg. Co.          | Grand Rapids Carved Moulding Co.        |
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| Blatchley, C. G.                    | Davis Acetylene Co.                | Hayes Mfg. Co.                          |
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 Loomis-Manning Filter Co.  
 Lord & Burnham Co.  
 Lorillard Refrigerator Co.  
 Mackolite Fireproofing Co.  
 Mannen & Esterly Co.  
 Marine Engine & Machine Co.  
 Marsh Co., Jas. P.  
 McCabe Hanger Mfg. Co.  
 McCreery & Co., Jas.  
 McCreery Co., Joseph  
 McFarland & Co., J. C.  
 McLain Co., S. C.  
 Mechanical Metal Mfg. Co.  
 Menely Bell Co.  
 Menzel & Son, Wm.  
 Merchant & Evans Co.  
 Merritt & Co.  
 Mertz's Sons, George  
 Meurer Bros. Co.  
 Michigan Pipe Co.  
 Miller & Bro., Jas. A.  
 Milner Seating Co., A. B.  
 Mississippi Glass Co.  
 Modern Steel Structural Co.  
 Moore & Co., E. B.  
 Morgan & Co.  
 Martin J. Monahan.  
 Monarch Acetylene Gas Co.  
 Monarch Water Heater Co.  
 Monroe Refrigerator Co.  
 Montauk Fire Detecting Wire Co.  
 Mosaic Marble Co.  
 Mosaic Tile Co.  
 Muralo Co.  
 Murphy Varnish Co.  
 Manhattan Fireproof Door Co.  
 Mueller Mfg. Co., H.  
 Murray Iron Wks. Co.  
 Murtaugh Co., Jas.  
 Mycenian Marble Co.  
 Municipal Lighting Co.  
 Municipal Engineering & Contracting Co.  
 McCray Refrigerator Co.  
 Murphy Iron Wks.  
 Morse Co., F. E.  
 Maurer & Son, Henry J.

Narragansett Machine Co.  
 National Filter Co.  
 National Fireproof Paint Corp.  
 National Lead Co.  
 National Tile Co.  
 National Ventilating Co.  
 National Waterproofing & Cleaning Co.  
 Naturo Co.  
 New Construction Co., T.  
 New Jersey Zinc Co.  
 New York Fireproof Column Co.  
 New York Mosaic & Marble Co.  
 New York Prism Co.  
 Nonparell Cork Wks.  
 Norcross Co.  
 Northampton Portland Cement Co.  
 Northwestern Terra Cotta Co.  
 Northern Electric Co.  
 Norwall Mfg. Co.  
 National Fireproofing Co.  
 Newburgh Brick Co.  
 Opal Brick Co.  
 Otis Elevator Co.  
 Peirce, John  
 Pullman Automatic Ventilator Co.  
 Prouty Co., T. C.  
 Prometheus Electric Co.  
 Pressed Steel Tank Co.  
 Paddock, W. W.  
 Paltridge & Co., R. W.  
 Parker, Preston & Co.  
 Parsons, Charles H.  
 Peerless Brick Co.  
 Peerless Kitchen Boiler & Supply Co.  
 Pels & Co., Henry.  
 Penn American Plate Glass Co.  
 Penn Engineering Co.  
 Perfect Fresh Air Inlet Co.  
 Perfect Safety Window Guard Co.  
 Phelps Co.  
 Philadelphia Water Purification Co.  
 Phillips Co., A. J.  
 Philadelphia Pitt Balance Door Co.  
 Pittsburgh Plate Glass Co.  
 Plenty Skylight Wks., Josephus  
 Portal Bed Co.  
 Porter Screen Mfg. Co.  
 Power Specialty Co.  
 Powers Regulator Co.  
 Prescott & Son, J. B.  
 Preservalline Mfg. Co.  
 Protective Ventilator Co.  
 Rambusch Glass & Decorating Co.  
 Ramsay, Andrew  
 Rapid Heater Co.  
 Rapp, John W.  
 Raymond Concrete Pile Co.  
 Reading Stove Wks.  
 Redlich & Co., Wm. F.  
 Reliance Ball Bearing Door Hanger Co.  
 Reno Inclined Elevator Co.  
 Revis, Wm. H.  
 Richards Mfg. Co.  
 Richardson & Boynton Co.  
 Rinald Bros.  
 Roberts Mfg. Co.  
 Rock Plaster Co.  
 Rockport Granite Co.  
 Roebling Construction Co.  
 Ronalds & Johnson Co.  
 Rookwood Pottery Co.  
 Rush Acetylene Generator Co.  
 Richardson Engineering Co.  
 Russell and Erwin Mfg. Co.  
 Sackett Wall Board Co.  
 Safety Window Lock & Ventilator Co.  
 Sall Mountain Asbestos Mfg. Co.  
 Samson Cordage Wks.  
 Sayre and Fisher Co.  
 Sealey & Co., Henry E.  
 Schouler, W. W.

Schroeder Lumber Co., John  
 Scully Ventilator Co.  
 Sedgwick Machine Co.  
 Shirley Radiator Foundry Co.  
 Shone Co.  
 Silver Lake Co.  
 Simmons Co.  
 Simplex Concrete Piling Co.  
 Sloane, W. & J.  
 Smith Mfg. Co., E. C.  
 Smith's Son, John R.  
 Soltmann, E. G.  
 Spencer, Robert C., Jr.  
 Splers, R. N.  
 Sprague Electric Co.  
 Stanley Hod Elevator Co.  
 Standard Concrete-Steel Co.  
 Standard Table Oil Cloth Co.  
 Stanley Wks.  
 Stevenson Co.  
 Stewart Iron Wks. Co.  
 Storm Mfg. Co.  
 Stowell Mfg. Co.  
 Sunlight Gas Machine Co.  
 Swain Mfg. Co.  
 Smith & Anthony.  
 Taylor Co., N. & G.  
 Tea Tray Co., The  
 Terwilliger Mfg. Co.  
 Thatcher Furnace Co.  
 Thermograde Valve Co.  
 Thomas & Smith  
 Thompson-Starrett Co.  
 Thompson Wood Finishing Co.  
 Tiffany Enameled Brick Co.  
 Toch Bros.  
 Trent Tile Co.  
 Trenton Potteries Co.  
 Truss Metal Lath Co.  
 Truss & Cable Fence Co.  
 Tucker & Vinton Corp.  
 Tuttle & Bailey Mfg. Co.  
 Thomas, Roberts, Stevenson Co.  
 Underwood, H. W.  
 Union Brassworks Co.  
 Union Fibre Co.  
 Union Steam Pump Co.  
 Unit Concrete Steel Frame Co.  
 U. S. Radiator Co.  
 U. S. Mineral Wool Co.  
 U. S. Wind Engine & Pump Co.  
 Universal Safety Tread Co.  
 Utica Heater Co.  
 Van Kannel Revolving Door Co.  
 Variety Mfg. Co.  
 Vehicle Specialty Co.  
 Voigtman & Co.  
 Wadsworth, C. J.  
 Waring, Chapman & Farquhar.  
 Warner Co., Charles  
 Watson Mfg. Co.  
 Wheeling Corrugating Co.  
 White Enamel Refrigerator Co.  
 White Fireproof Construction Co.  
 Whitehall Portland Cement Co.  
 Whitman Co., J. Franklin  
 Whitley, John  
 Wight-Easton-Townsend Co.  
 Wilcox Mfg. Co.  
 Wilks Mfg. Co., S.  
 Wilke Mfg. Co.  
 Williams, John  
 Williams Pivot Sash Co.  
 Williams & Whitman.  
 Wilson Co., A. & S.  
 Wilson Mfg. Co., Jas. G.  
 Wimmer Adjustable Window Shade Co.  
 Winslow Bros. Co.  
 Winslow Co., E. J.  
 Wirt & Knox Mfg. Co.  
 Wood Mosaic Flooring Co.  
 Woodbury Granite Co.  
 Wiener Ernest Co.  
 York Mfg. Co.